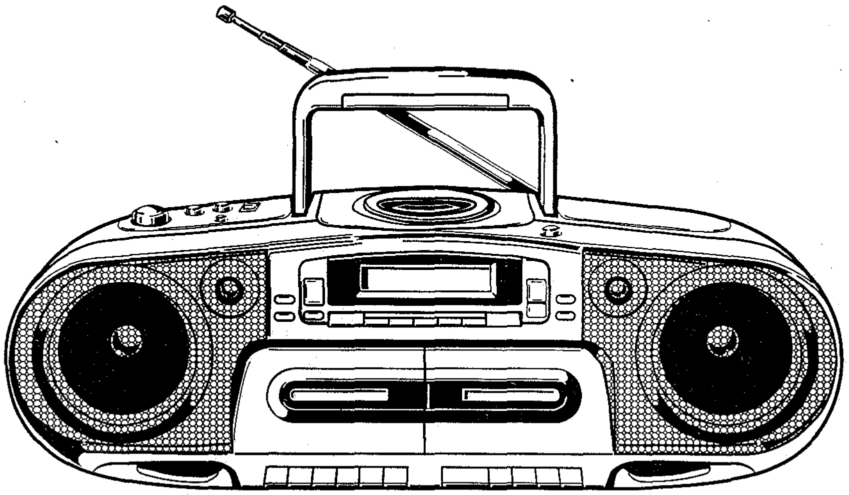
SAMSUNG
Electronics

SERVICE MANUAL
MODEL: RCD - 1550

DTS RADIO CASSETTE RECORDER WITH COMPACT DISC PLAYER



SPECIFICATION

GENERAL

Frequency response	20~20000Hz
Speaker	Woofer: ø 100mm x 2 (6 Ω)
Max output	7.5W/CH
Power source	AC: See label rating
	DC: 12V (D,UM1,HP2)
	DC: 4.5V (AA x 3)
	—For memory back up
Power consumption	30W
Dimension	616(W) x 213(H)x 227(D)
Weight	5.5Kg (Without batteries)
Headphone jack	ø 3.5mm

RADIO

Frequency range	FM: 87.5~108MHz(87.5~107.9)
	AM(MW): 520~1720KHz
	(522~1611)KHz
	LW: 146~290KHz
I.F	FM: 10.7MHz
Antenna	FM: Telescopic rod antenna
	AM(MW)/LW: Ferrite bar antenna

TAPE RECORDER

Track system	4 track 2 channel
Recording system	AC bias (DECK A)
Erasing system	Magnetic erasing (DECK A)
Monitor system	Variable monitor
Frequency response	Normal 50~8000Hz
Tape speed	4.75cm/sec (Normal speed)
	9.5cm/sec (High speed)
Tape drive system	Capstan belt driven
Tape loading system	Front loading
Motor system	DC synchronous
	2 speed motor (DC 12V)

COMPACT DISC PLAYER

Frequency range	20~20,000Hz
Signal to Noise ratio	82 dB
D/A Conversion	16 bit
Total Harmonic Distortion	0.1%
	(with 30KHz L.P.F)

Design and specifications are subject to change upon improvement without prior notice.

CONTENTS

- SAFETY PRECAUTION 2
- SERVICING NOTES 3
- LOCATION OF CONTROLS ..... 4 to 5
- DISASSEMBLY INSTRUCTION ..... 6 to 7
- LCD DISPLAY 8
- TROUBLESHOOTING CHART ..... 9 to 14
- ADJUSTMENT ..... 15 to 17
  1. MAIN SECTION
  2. CD SECTION/TUNER SECTION
- BLOCK DIAGRAMS ..... 18 to 19
  1. TUNER SECTION
  2. MAIN SECTION
  3. CD SECTION
- DECK EXPLODED VIEW
  1. CASSETTE DECK & PARTS LIST 20
  2. CD DECK & PARTS LIST/MECHANICAL PARTS LIST 21
- EXPLODED VIEW 22
- PARTS LIST ..... 23 to 28
- ABBREVIATION LIST 29
- WIRING DIAGRAMS ..... 30 to 31
  1. MAIN SECTION
  2. TUNER/CD SECTION
- SCHEMATIC DIAGRAMS ..... 32 to 34
  1. MAIN SECTION
  2. TUNER SECTION
  3. CD SECTION

■ SAFETY PRECAUTION

1. CLASS1 LASER PRODUCT

This compact disc player is classified as a CLASS 1 laser product.

2. LASER WARNING LABEL

The label shown below may be affixed or not according to country.

(UL)

This Produc, Compiles with DHHS Rules 21CFR, Sub chapter J.At date of Manufacture.

(CSA)

CERTIFIED ONLY TO CANADIAN ELECTRICAL CODE.

CERTIFIE EN VERTU DU CODE CANADIAN DE LELETRICITE SEULEMENT

(EU)

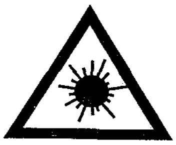
CLASS1
LASER PRODUCT

Location : Enclosure back.

(SCAN)

ADVARSEL: USYNLIG LASERSTRALING VED ABNING, NAR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGÅ UDSAETTELSE FOR STRÅLING.

(EU)



UL : Manufactured for U.S.A.Market.
CSA : Manufactured for Canadian Market.
EU : Manufactured for European Market.
SCAN : Manufactured for Scandinavian Market.

Location : on the disc clamper or inner side of CD door or nearby CD chassis.

3. LASER BEAM WARNING

ADVERSEL — USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLING.

VARNING — OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRALEN ÄR FARLIG.

VARITUS — LAITE SISÄLTÄÄ LASERDIODIN, JOKA LÄHETTÄÄ NÄKYMÄTÖNTA SILMILLE VAARALLISTA LASERSATEILYÄ.

CAUTION — INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.

4. LASER DIODE SPECIFICATION (OPTICAL PICK - UP)

o Material: AlGaAs
o Wavelength: 760-800mm
o Emission duration: Continuous
o Laser Output: 0.2mW
o * This output is the value measured at distance 1.6mm from the objective lens surface on the optical pick-up block.
o Classification: CLASS 1

5. WARNING FOR SERVICING

WARNING: When servicing, do not approach the LASER exit with the eye too closely. In case it is necessary to confirm LASER beam emission, be sure to observe from a distance of more than 30cm from the surface of the objective lens on the optical pick-up block.

VARNING: När underhållningsarbeten utförs, närma dig försiktigt och se inte på laserutstrålningen på för näre. häll det är nödvändigt att betrygga laserstrålens utströmning. Var säker att kontrollera detta från ett avstånd av mer än 30cm (11.81 inch.) från den objektiva linsens yta på den optiska utsåndningspunkten.

ADVARSEL: När repareringsarbejdet udfoeres, naerm dig forsigtigt og se ikke på laserudstrålingen på for naer hånd. it ilfaeldet at det er noedvaendigt at bestemme laserstrålens udstråling. Vaer sikker på kontrollere dette fra en afstand af mere end 30cm (11.81 inch.) fra den objektive linses overflade på den optiske udsendningspunkt.

VAROITUS: Silmiä on varottava viemästä liian läbeiie Laser-poistodanavaa huoiion aikana. Jos on välttämätöntä varmistaa Laser-Säteen päästö, pysyttels sitä tarkasteltaessa vähintään 30cm etäiyydellä optisen lukon objecktiivilinssin pinnasta.

SERVICING NOTES

1. Disconnect power supply cord before separating cabinet for servicing as you experience an electric shock.
2. Avoid repairing under direct sunshine and heat which may cause cabinet, transistor an IC to be transformed or misoperate.
3. Use a soft cotton swab moistened with warm water or neutral cleaner when parts of a unit need to be cleaned.
4. Be sure to use identical and standardized replacement parts, especially for critical parts marked by ⚠ in the circuit diagram and parts list.
5. Avoid repairing the set near aTV or any other magnetic forces.
6. Disconnect the plug from wall socket during electric storm to reduce the risk of damage.
7. Be careful of electrostatic damage when replacing the control IC such as µ-COM, LSI and pick-up.

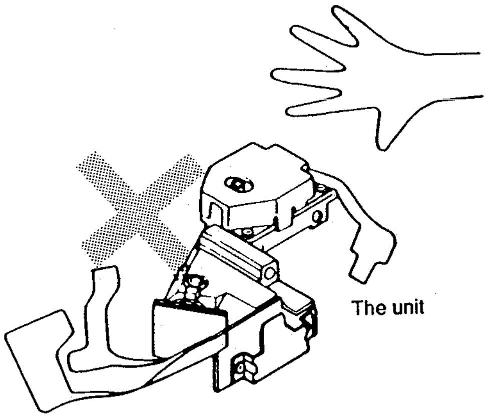
HANDLING THE OPTICAL PICK-UP

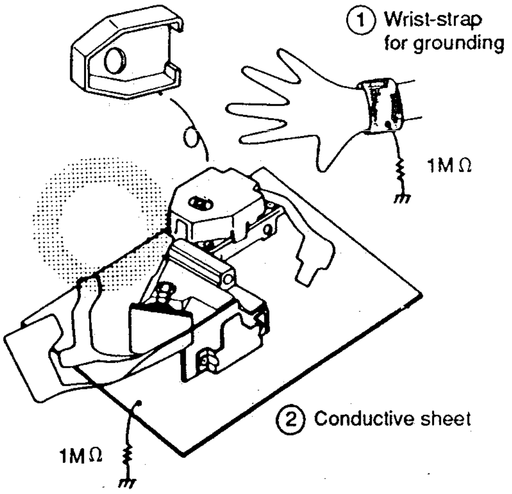
- The laser diode in the optical pick up may suffer electrostatic breakdown because of potential static electricity from clothing and your body.

The following method is recommended.

1. Place a conductive sheet on the workbench. (The black sheet used as wrapping for repair parts.)
2. Place the set on the conductive sheet so that the chassis is grounded to the sheet.
3. Place your hands on the conductive sheet. (This gives them the same ground as the sheet.)
4. Remove the optical pick up block.
5. Perform work on top of the conductive sheet.
   Be careful not to let your clothes or any other static sources touch the unit.

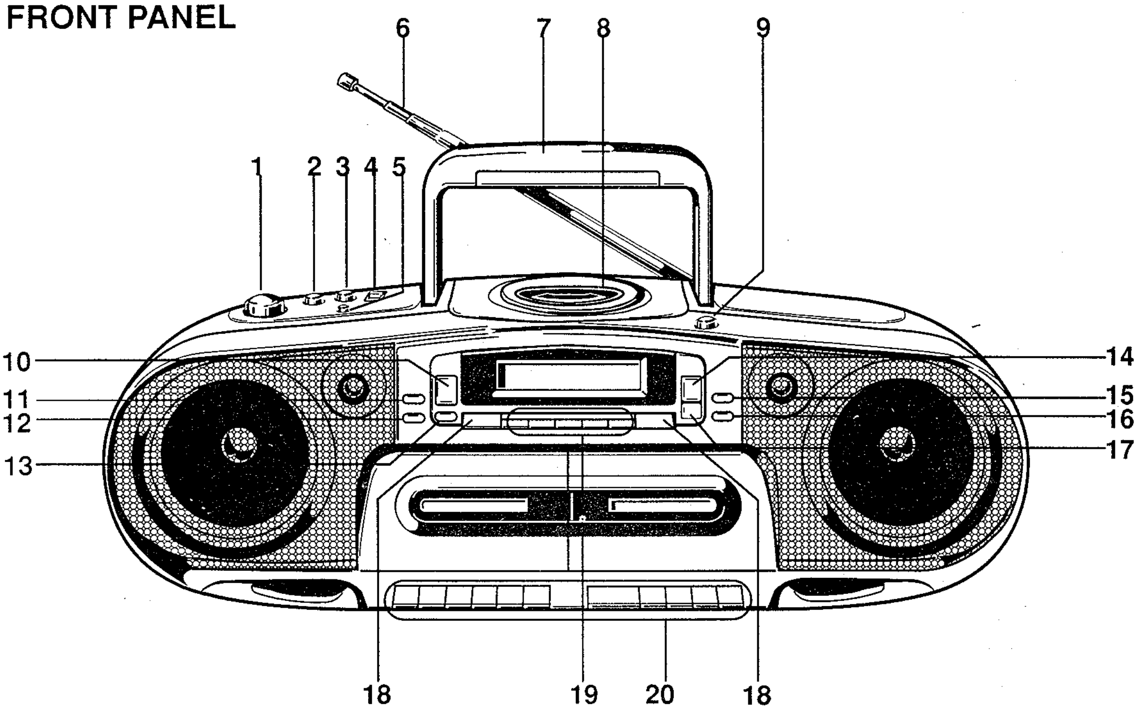
- Be sure to put on a wrist-strap grounded to the sheet.
- Be sure to lay a conductive sheet made of copper etc. which is grounded to the table.





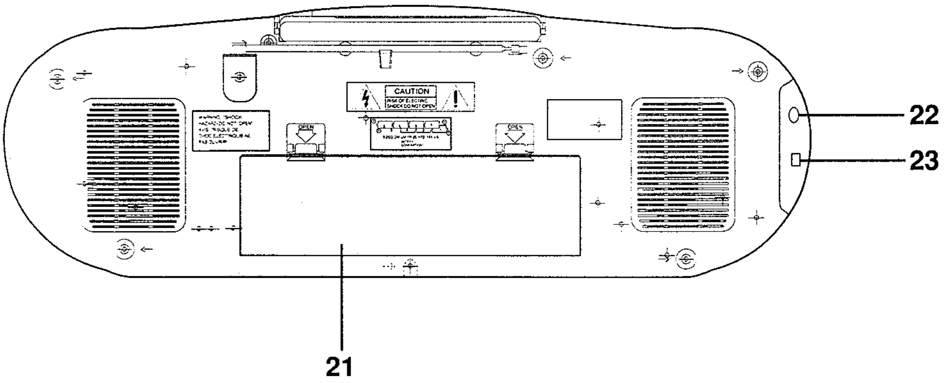
■ LOCATION OF CONTROLS

1. FRONT PANEL



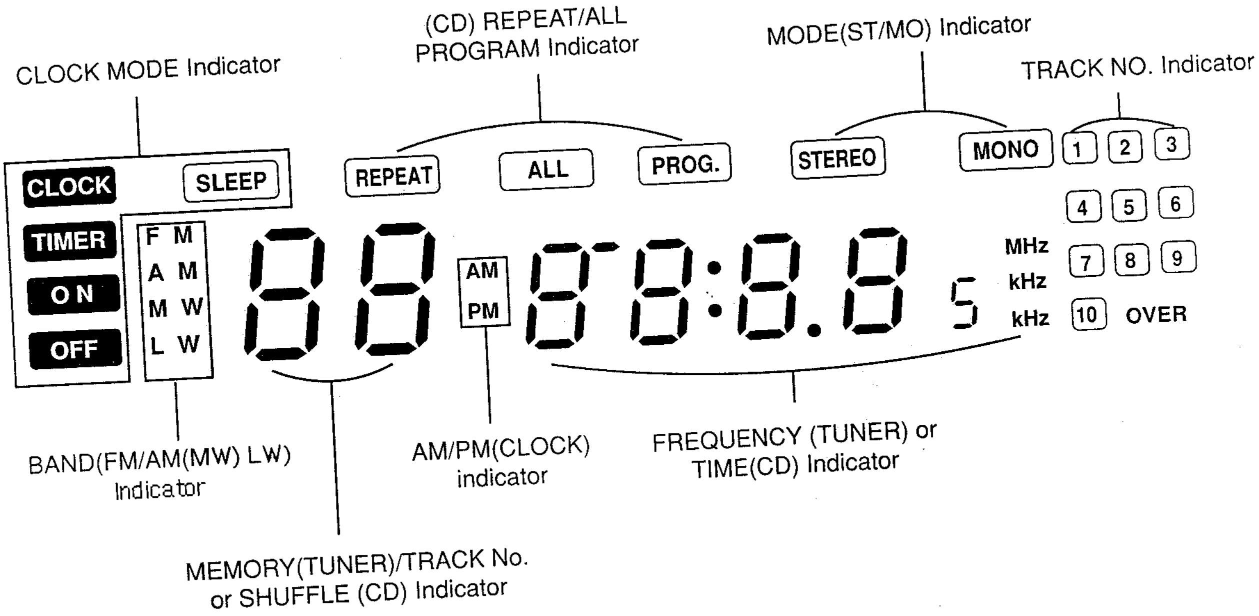
1. VOLUME knob
2. SBS volume
3. TREBLE knob
4. FUNCTION selector (CD, RADIO, TAPE)
5. BEAT CUT button
6. ROD antenna
7. Handle
8. CD door
9. PUSH OPEN button
10. POWER button
11. TIMER button
12. CLOCK button
13. BAND button
14. PLAY/PAUSE button
15. +10 button
16. INTRO/MEMORY SCAN button
17. STOP/CLEAR button
18. TUNING button
    UP/DOWN (TUNER)
    NEXT/BACK(CD)
19. CD/TUNER control buttons
    SLEEP button
    PRESET/SHUFFLE button
    ST(MO)/REPEAT button
    ME.PROGRAM button
    DISPLAY button
20. DECK control buttons
    RECORD button (DECK A only)
    PLAY button
    REW button
    F.FWD button
    STOP/EJECT button
    PAUSE button

2. REAR PANEL

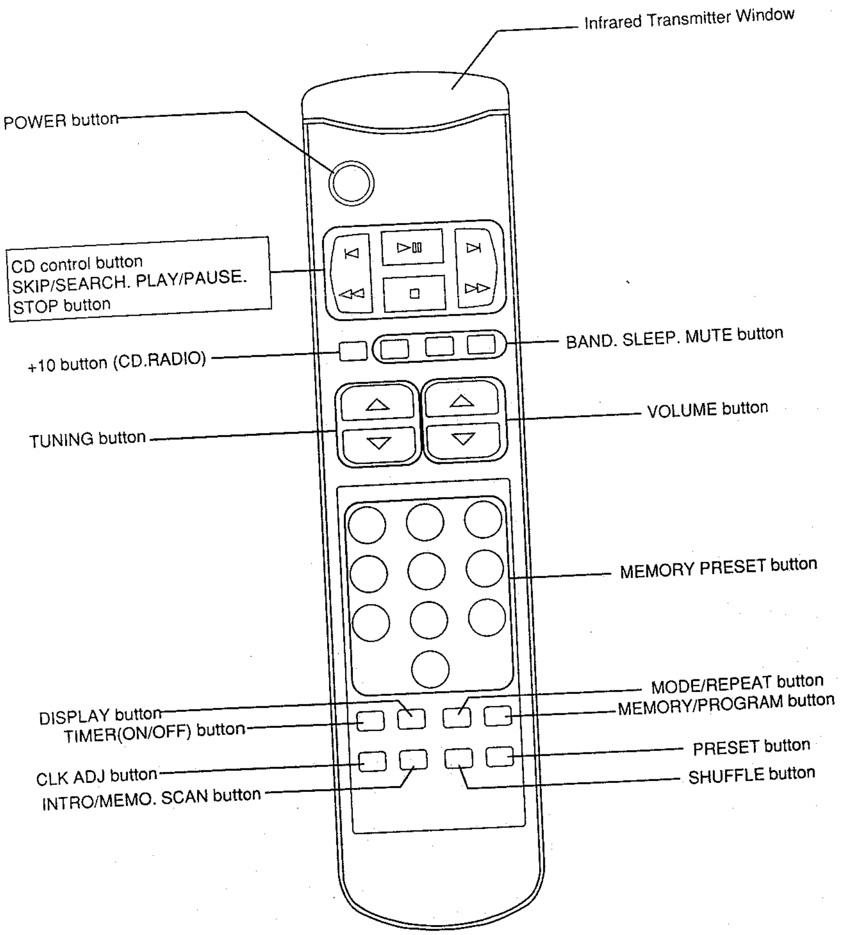


21. Battery compartment
22. PHONE jack
23. AC IN ~ socket

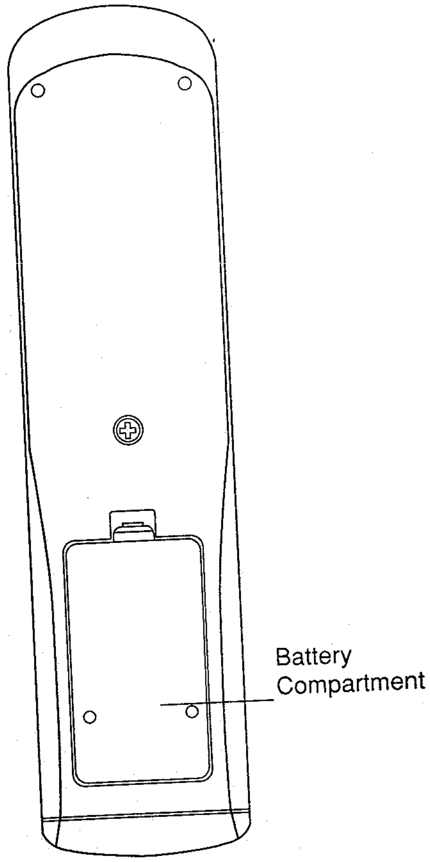
3. TUNER/CD Function Display


CLOCK MODE Indicator
(CD) REPEAT/ALL PROGRAM Indicator
MODE(ST/MO) Indicator
TRACK NO. Indicator
CLOCK
SLEEP
TIMER
ON
OFF
REPEAT
ALL
PROG.
STEREO
MONO
1
2
3
4
5
6
7
8
9
10
OVER
F M
A M
M W
L W
AM
PM
MHz
kHz
kHz
BAND(FM/AM(MW) LW) Indicator
AM/PM(CLOCK) indicator
FREQUENCY (TUNER) or TIME(CD) Indicator
MEMORY(TUNER)/TRACK No. or SHUFFLE (CD) Indicator

4. REMOTE CONTROL UNIT(FRONT PANEL)

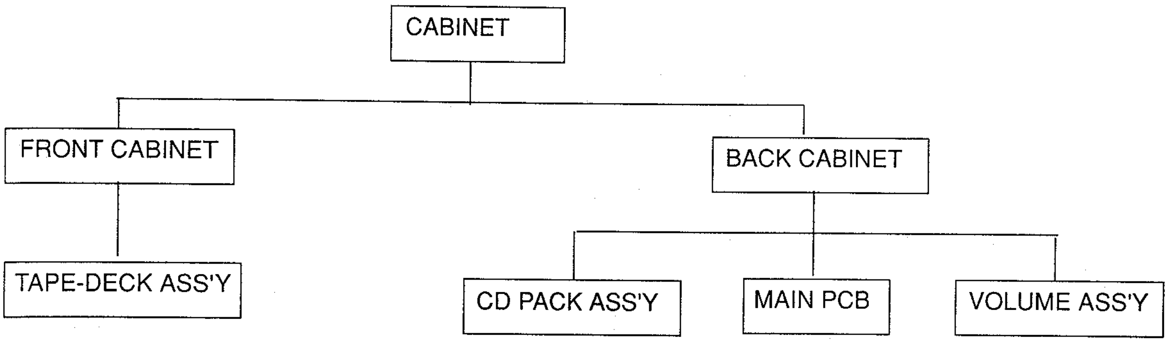

Infrared Transmitter Window
POWER button
CD control button
SKIP/SEARCH. PLAY/PAUSE.
STOP button
+10 button (CD.RADIO)
BAND. SLEEP. MUTE button
TUNING button
VOLUME button
MEMORY PRESET button
DISPLAY button
TIMER(ON/OFF) button
MODE/REPEAT button
MEMORY/PROGRAM button
CLK ADJ button
INTRO/MEMO. SCAN button
PRESET button
SHUFFLE button

(REAR PANEL)


Battery
Compartment

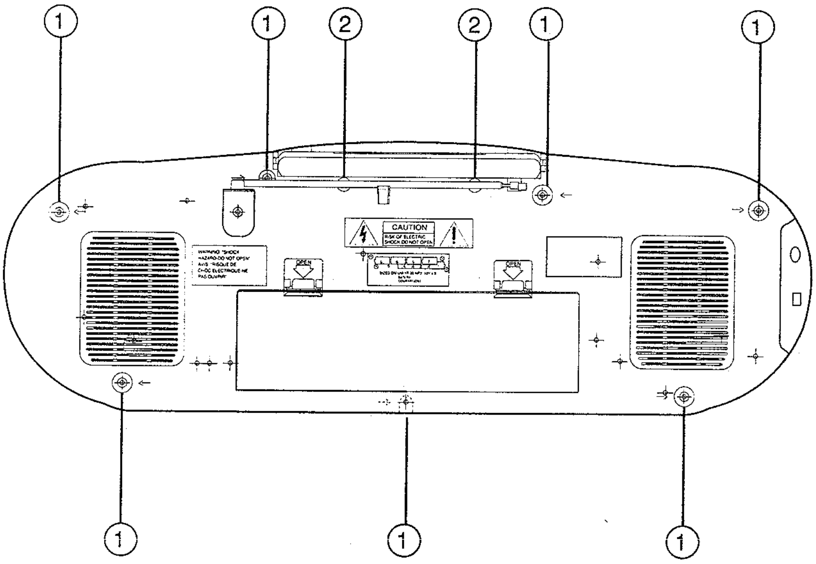
■ DISASSEMBLY INSTRUCTION

- When disassembling the unit, follow the disassembly order given below.


CABINET
FRONT CABINET
BACK CABINET
TAPE-DECK ASS'Y
CD PACK ASS'Y
MAIN PCB
VOLUME ASS'Y

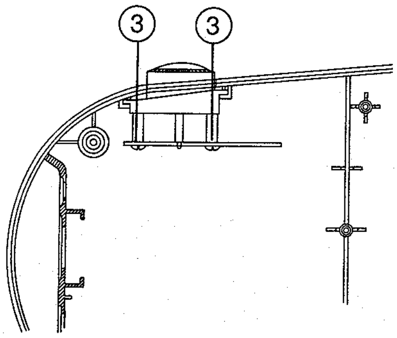
1. CABINET (FRONT/REAR)

1) Release 7 screws ①
2) Split the Front and Back cabinet
3) Disconnect connecting wires from Motor, speacker wire and Head A/B


①
①
②
②
①
①
CAUTION
OPEN
OPEN
①
①
①

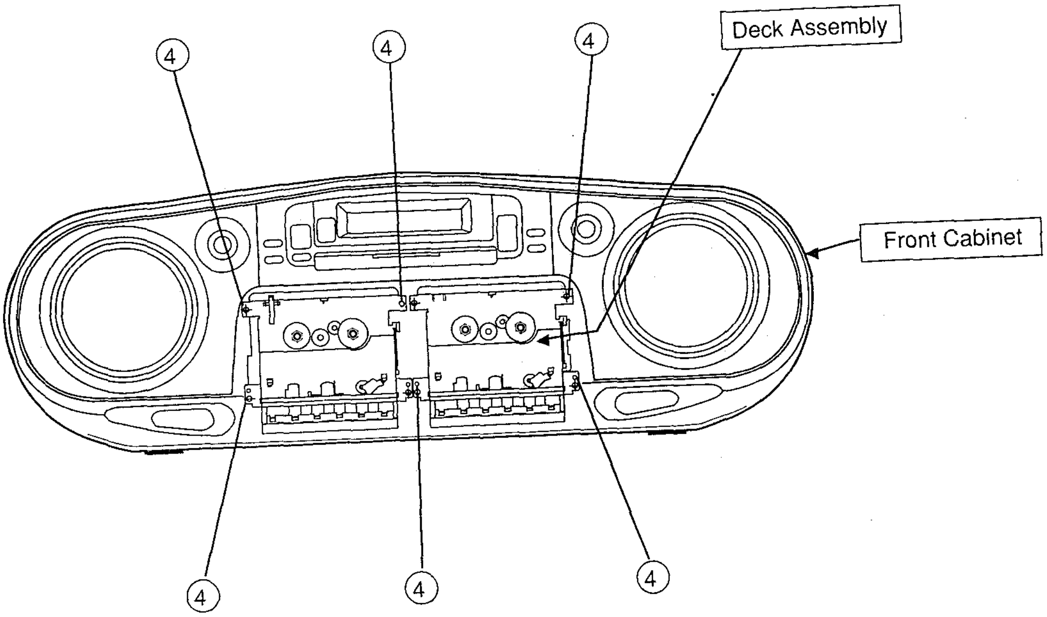
2. VOLUME ASSEMBLY

1) Remove volume knob from the back cabinet
2) Remove the 2 screws ③
3) Remove Volume PCB from the Volume Holder



3. CASSETTE DECK ASSEMBLY

1) Release 6 screws ④ from the Front Cabinet.
2) Remove Cassette deck assembly.

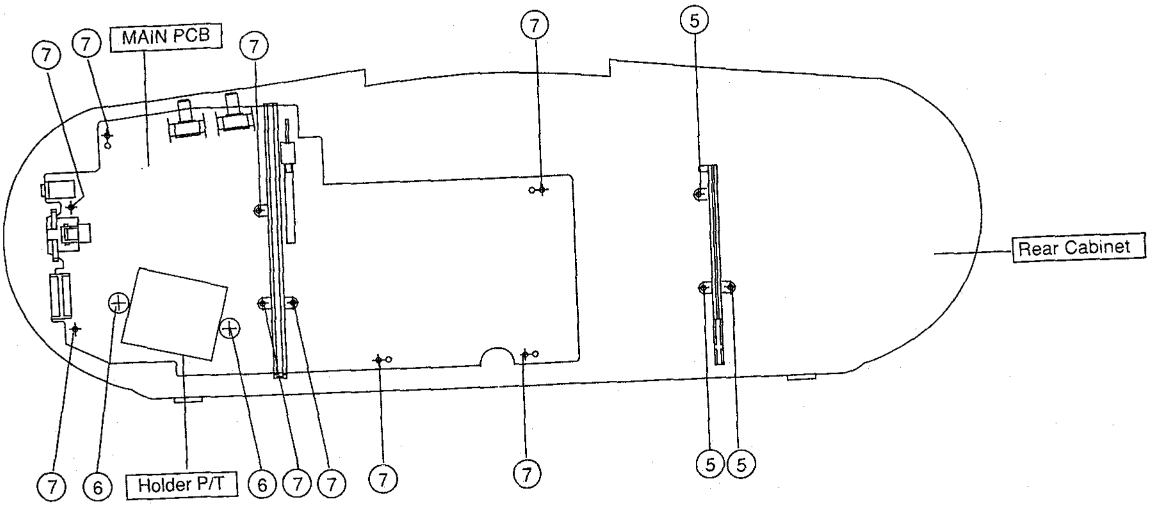

④
④
④
Deck Assembly
Front Cabinet
④
④
④

4. CD PACK ASSEMBLY & MAIN PCB

1) Release 2 screws ②, (page ⑥)
2) disconnect connecting wires SIG,(μ-COM, TUNER,CD) from MAIN PCB
3) Remove CD pack assembly form the Back cabinet.

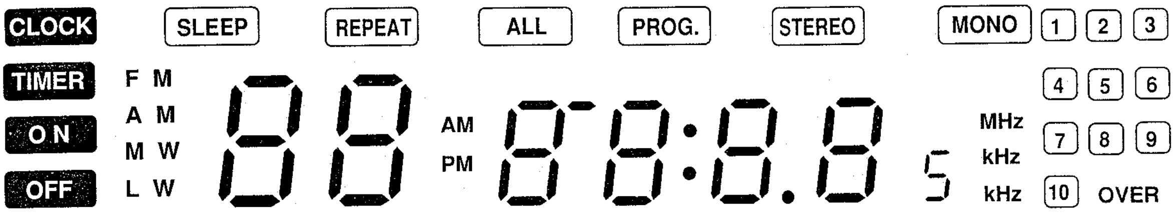
5. MAIN PCB

1) Release 2 screws ⑥
2) Remove power trans Holder from the MAIN PCB.
3) Release 9 screws ⑦
4) Disconnect connecting wires (BATT,BACK UP BATT) from MAIN PCB
5) Remove MAIN PCB


⑦
⑦
MAIN PCB
⑦
⑦
⑤
Rear Cabinet
⑦
⑥
Holder P/T
⑥
⑦
⑦
⑦
⑦
⑤
⑤

LCD DISPLAY

TUNER LCD/CD LCD
If one or all of the LCD Segments don't work, Check Connection IC and Pins refering to the Segment Chart.


CLOCK
SLEEP
REPEAT
ALL
PROG.
STEREO
MONO
1
2
3
TIMER
F M
A M
M W
L W
ON
OFF
AM
PM
4
5
6
MHz
kHz
kHz
7
8
9
10
OVER

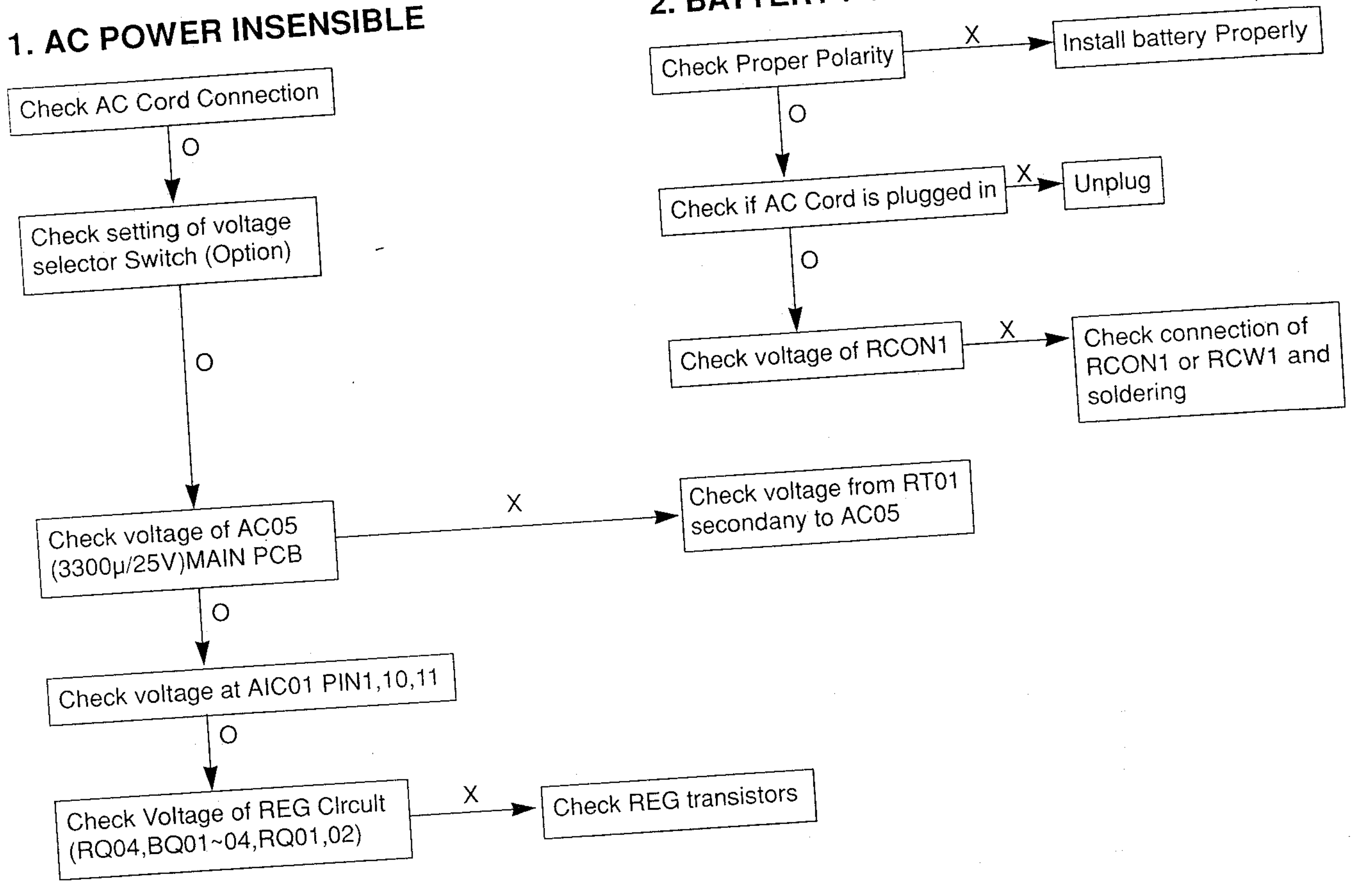
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
com1			com1	ON	OFF			SLEEP	PM	2A	REPEAT	ALL	3A	AM(2)	PROG
com2		com2		CLOCK	LW kHZ(2)				2E	2D	2C	3E	3D	3C	4E
com3	com3			TIMER	kHZ(1)	MW	AM(1)	8AC DFG	2F	SG	SB	3F	3G	3B	4F
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	
com1	4A	S	col	5a	STEREO	FM P MHz	6A	MON	10	7A	7	2	3	OVER	
com2	4D	4C	5E	5D	5C	6E	6D	6C	7E	7D	7C	1	8	9	
com3	4G	4B	5F	5G	5B	6F	6G	6B	7F	7G	7B	4	5	6	

O : YES/Normal
X : NO/Abnormal

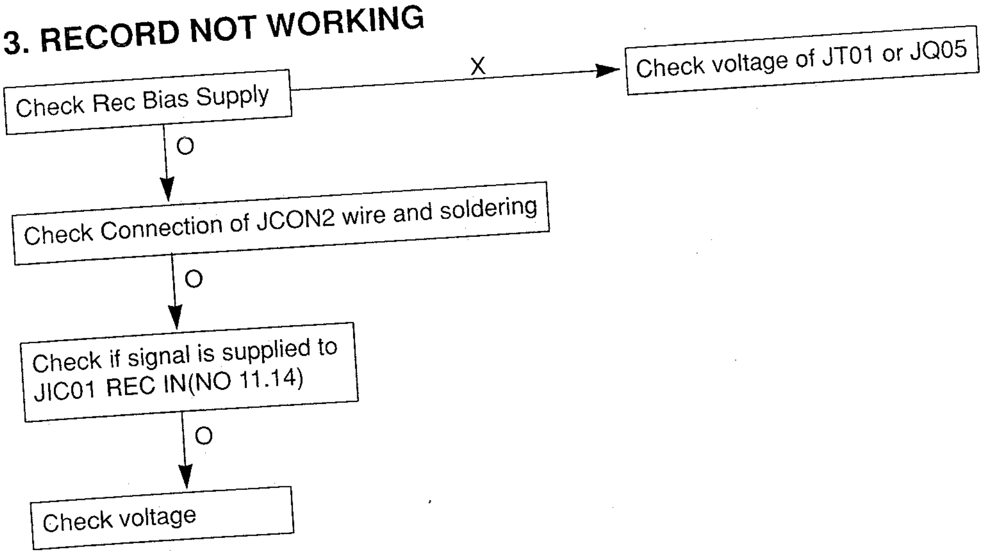
TROUBLESHOOTING CHART

1. AC POWER INSENSIBLE

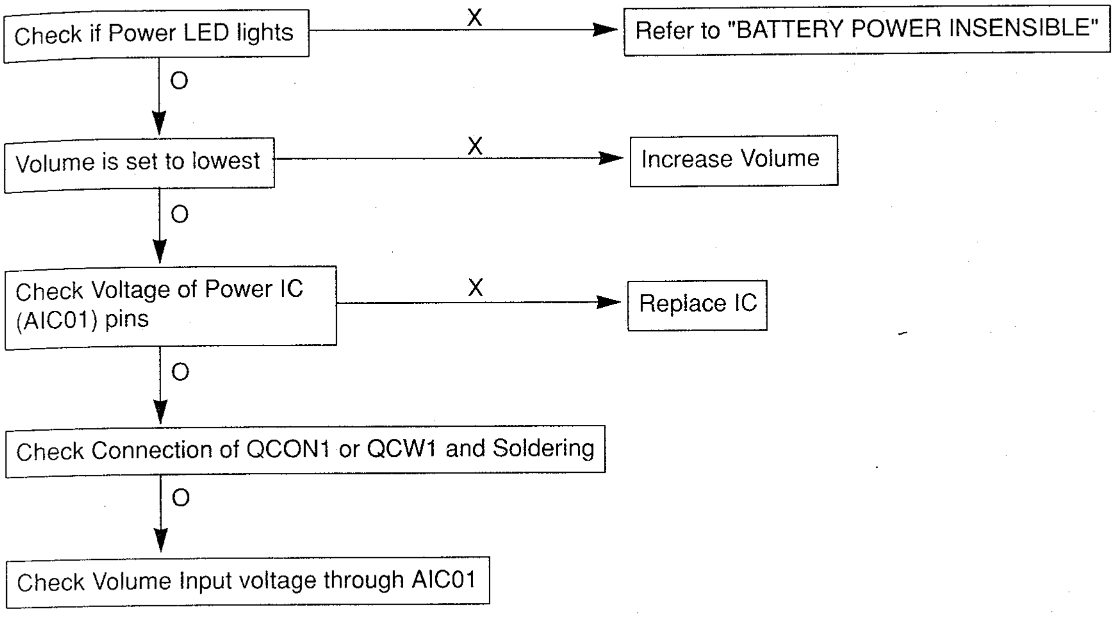
2. BATTERY POWER INSENSIBLE


Check AC Cord Connection
O
Check setting of voltage selector Switch (Option)
O
Check voltage of AC05 (3300μ/25V)MAIN PCB
X
Check voltage from RT01 secondany to AC05
O
Check voltage at AIC01 PIN1,10,11
O
Check Voltage of REG Clrcult (RQ04,BQ01~04,RQ01,02)
X
Check REG transistors
Check Proper Polarity
X
Install battery Properly
O
Check if AC Cord is plugged in
X
Unplug
O
Check voltage of RCON1
X
Check connection of RCON1 or RCW1 and soldering

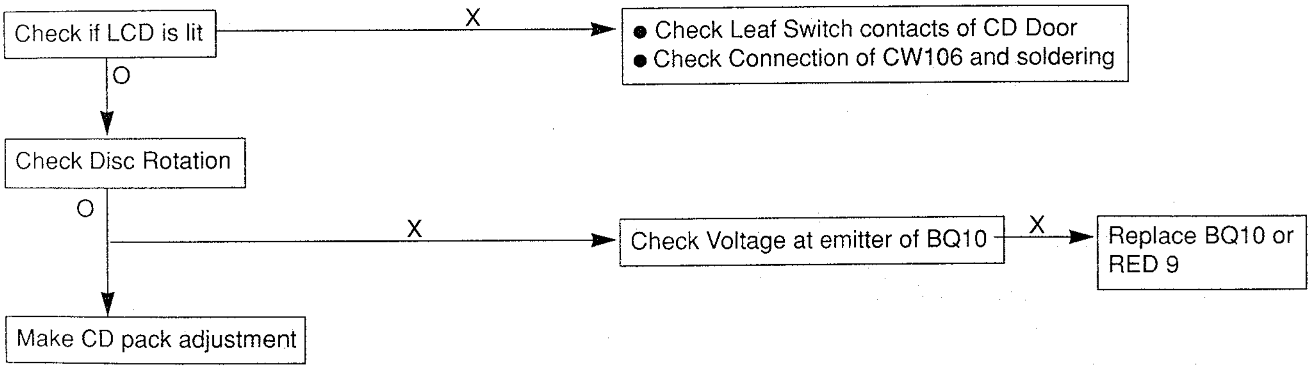
3. RECORD NOT WORKING


Check Rec Bias Supply
X
Check voltage of JT01 or JQ05
O
Check Connection of JCON2 wire and soldering
O
Check if signal is supplied to JIC01 REC IN(NO 11.14)
O
Check voltage

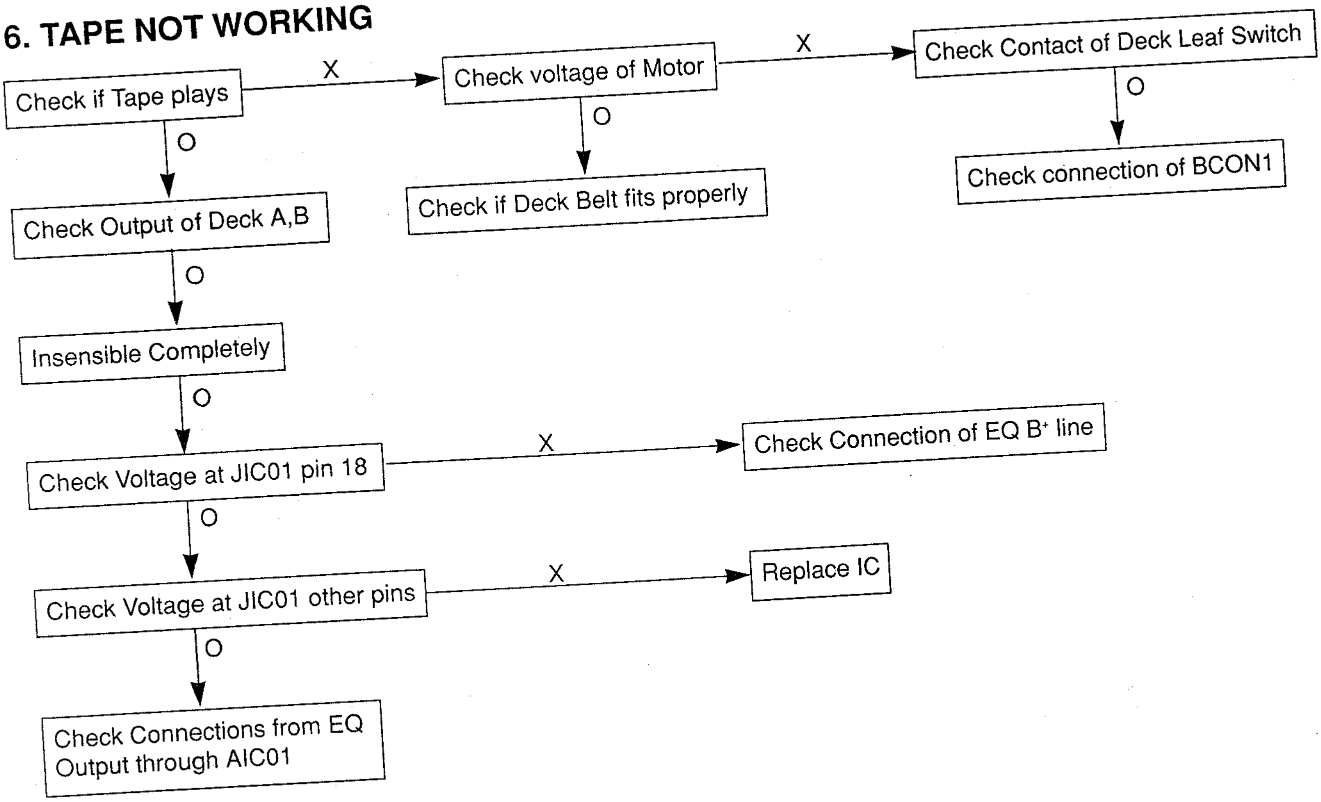
4. NO OUTPUT


Check if Power LED lights
X
Refer to "BATTERY POWER INSENSIBLE"
O
Volume is set to lowest
X
Increase Volume
O
Check Voltage of Power IC (AIC01) pins
X
Replace IC
O
Check Connection of QCON1 or QCW1 and Soldering
O
Check Volume Input voltage through AIC01

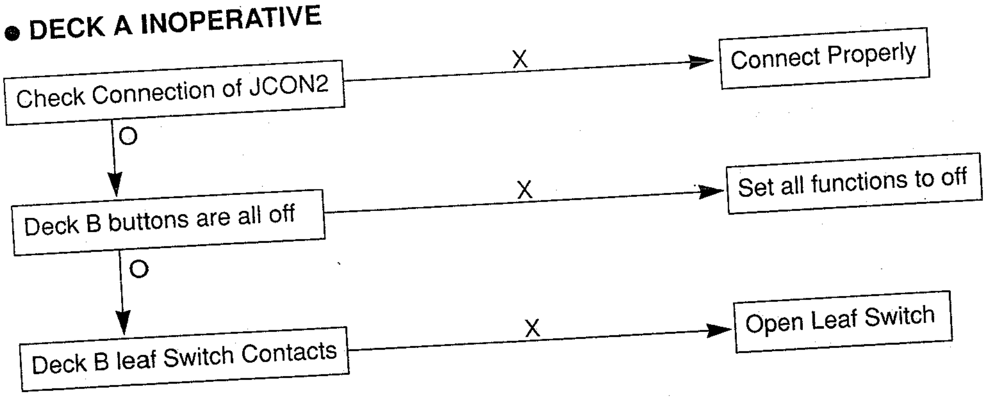
5. COMPACT DISC INOPERATIVE


Check if LCD is lit
X
● Check Leaf Switch contacts of CD Door
● Check Connection of CW106 and soldering
O
Check Disc Rotation
O
X
Check Voltage at emitter of BQ10
X
Replace BQ10 or RED 9
Make CD pack adjustment

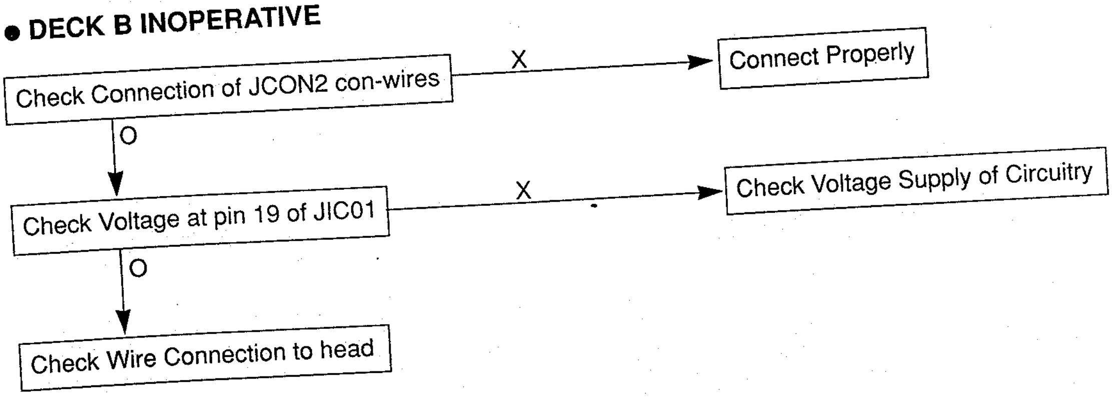
6. TAPE NOT WORKING


Check if Tape plays
X
Check voltage of Motor
X
Check Contact of Deck Leaf Switch
O
Check connection of BCON1
O
Check if Deck Belt fits properly
O
Check Output of Deck A,B
O
Insensible Completely
O
Check Voltage at JIC01 pin 18
X
Check Connection of EQ B+ line
O
Check Voltage at JIC01 other pins
X
Replace IC
O
Check Connections from EQ Output through AIC01

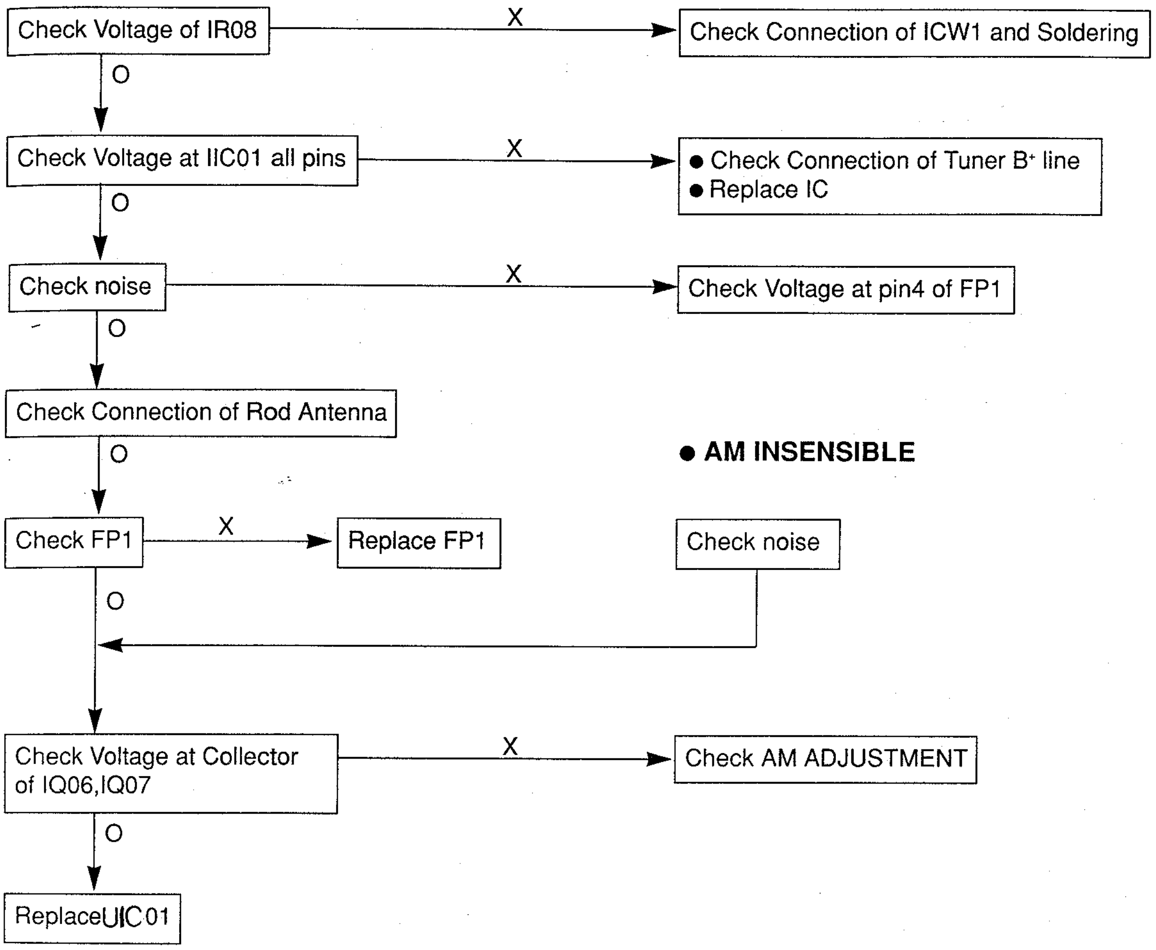
● DECK A INOPERATIVE


Check Connection of JCON2
X
Connect Properly
O
Deck B buttons are all off
X
Set all functions to off
O
Deck B leaf Switch Contacts
X
Open Leaf Switch

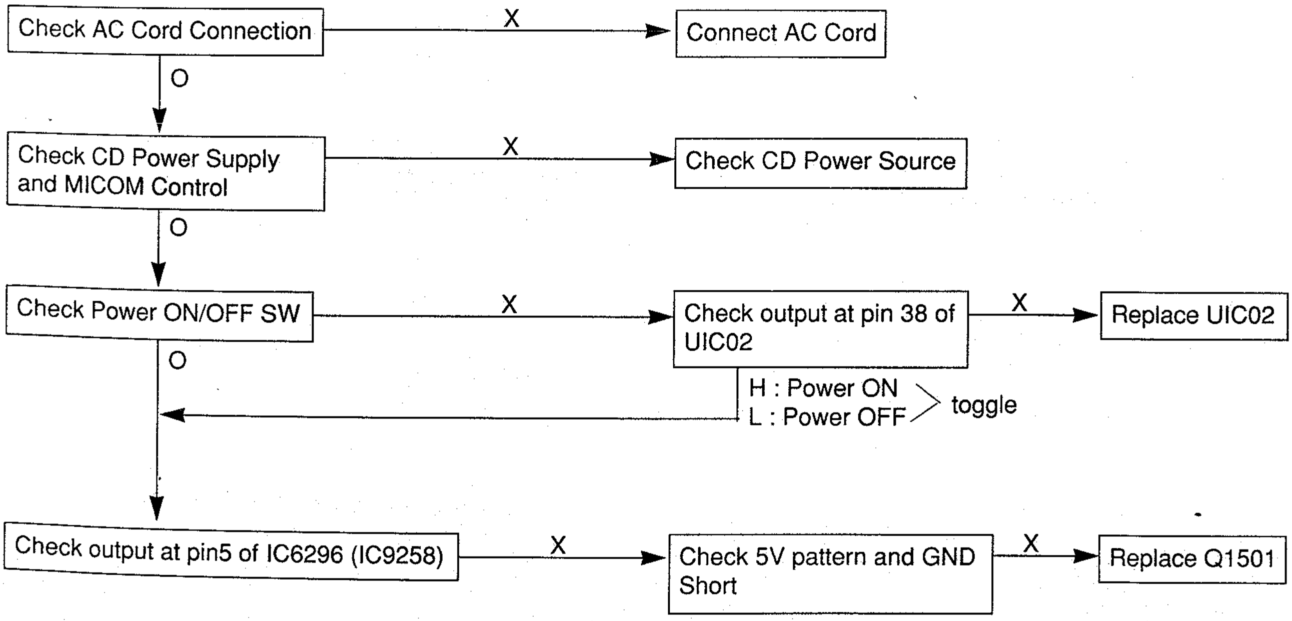
● DECK B INOPERATIVE


Check Connection of JCON2 con-wires
X
Connect Properly
O
Check Voltage at pin 19 of JIC01
X
Check Voltage Supply of Circuitry
O
Check Wire Connection to head

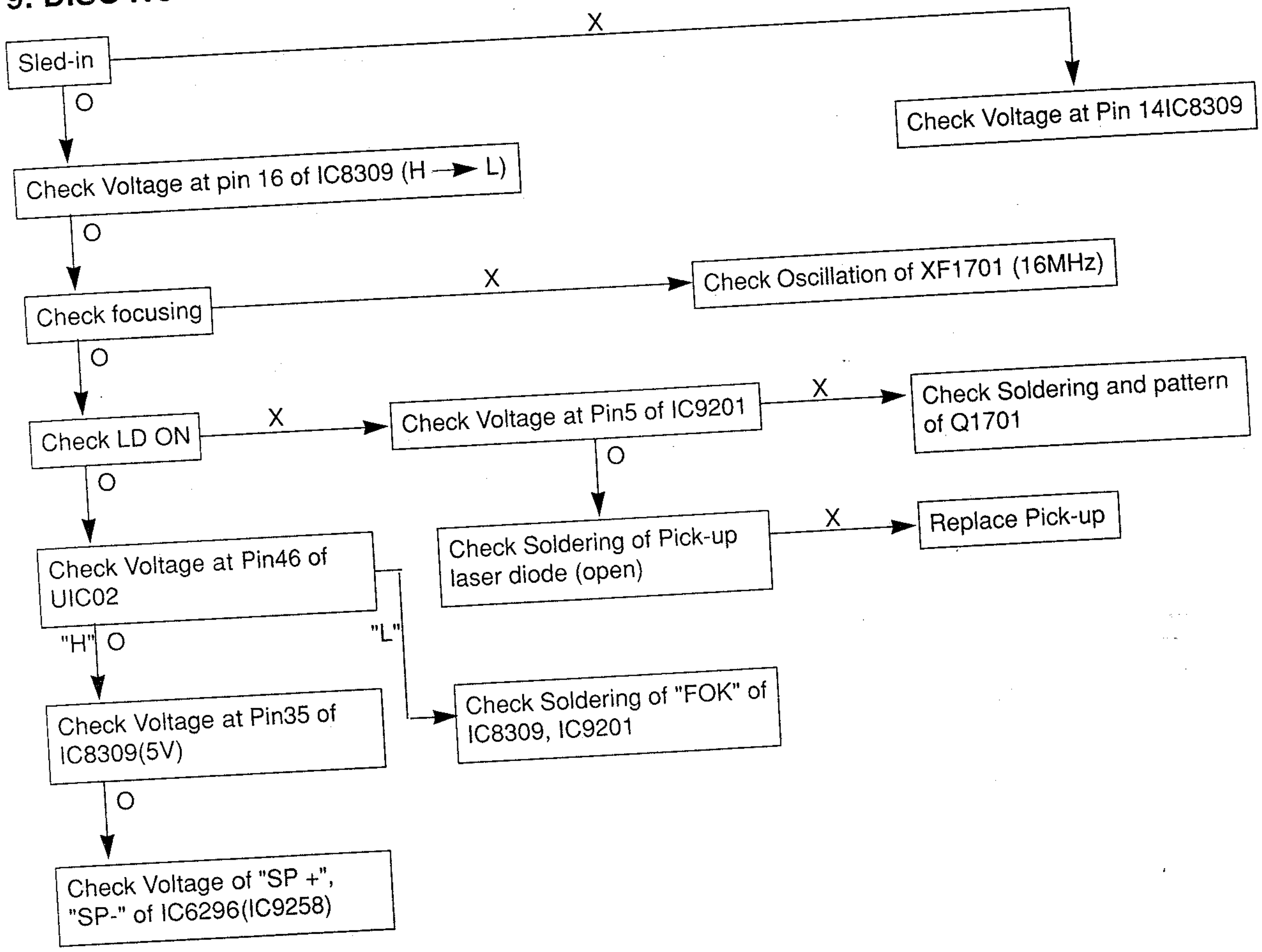
7. RADIO INSENSIBLE


Check Voltage of IR08
X
Check Connection of ICW1 and Soldering
O
Check Voltage at IIC01 all pins
X
● Check Connection of Tuner B+ line
● Replace IC
O
Check noise
X
Check Voltage at pin4 of FP1
O
Check Connection of Rod Antenna
O
● AM INSENSIBLE
Check FP1
X
Replace FP1
Check noise
O
Check Voltage at Collector of IQ06,IQ07
X
Check AM ADJUSTMENT
O
ReplaceUIC01

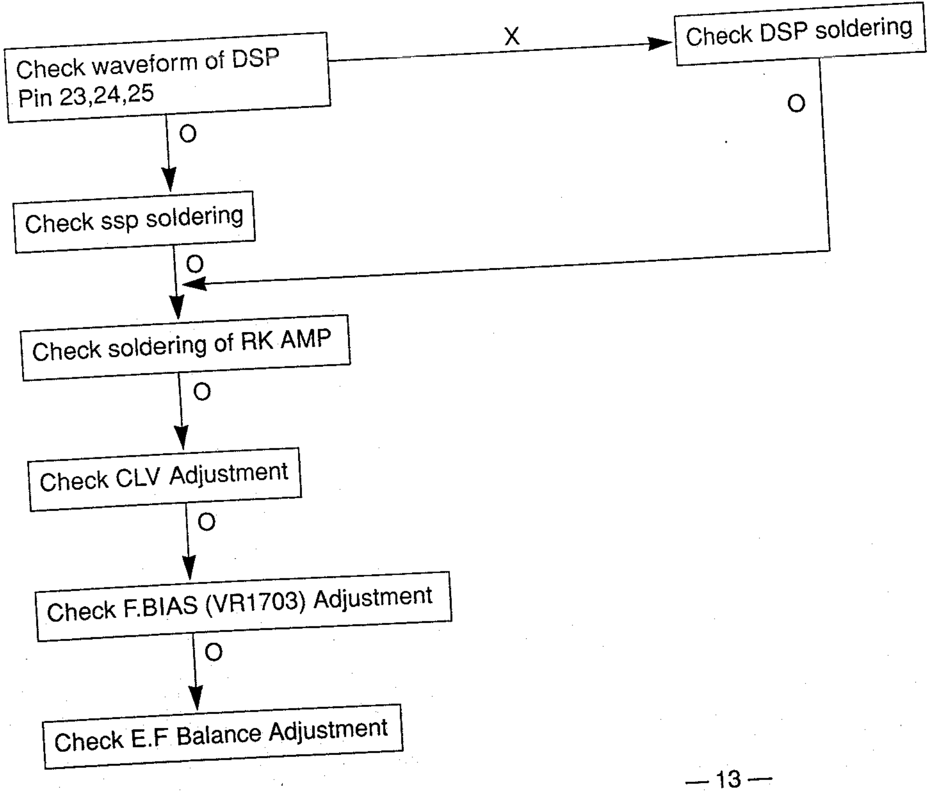
8. CD PLAYER SECTION POWER NOT SENSIBLE


Check AC Cord Connection
X
Connect AC Cord
O
Check CD Power Supply and MICOM Control
X
Check CD Power Source
O
Check Power ON/OFF SW
X
Check output at pin 38 of UIC02
X
Replace UIC02
H : Power ON
L : Power OFF
toggle
O
Check output at pin5 of IC6296 (IC9258)
X
Check 5V pattern and GND Short
X
Replace Q1501

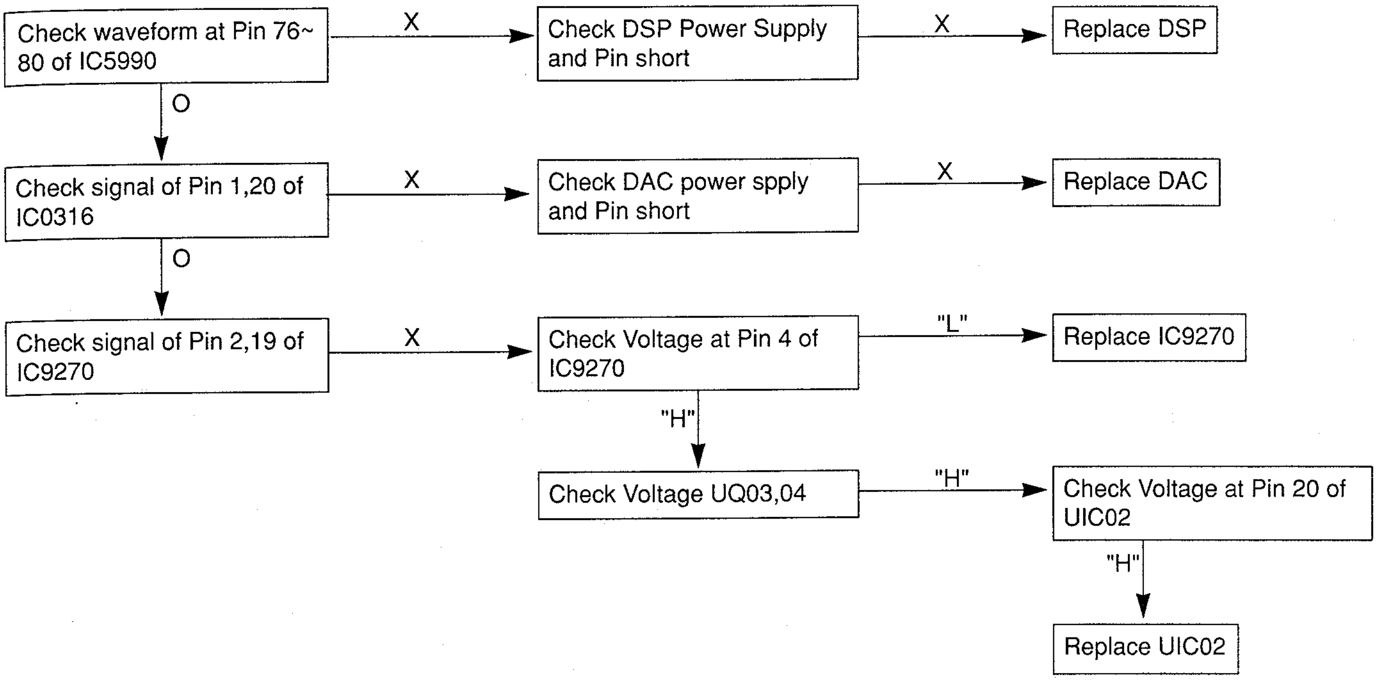
9. DISC NOT ROTATING


Sled-in
X
Check Voltage at Pin 14IC8309
O
Check Voltage at pin 16 of IC8309 (H ▶ L)
O
Check focusing
X
Check Oscillation of XF1701 (16MHz)
O
Check LD ON
X
Check Voltage at Pin5 of IC9201
X
Check Soldering and pattern of Q1701
O
Check Soldering of Pick-up laser diode (open)
X
Replace Pick-up
O
Check Voltage at Pin46 of UIC02
"H" O
"L"
Check Soldering of "FOK" of IC8309, IC9201
Check Voltage at Pin35 of IC8309(5V)
O
Check Voltage of "SP +", "SP-" of IC6296(IC9258)

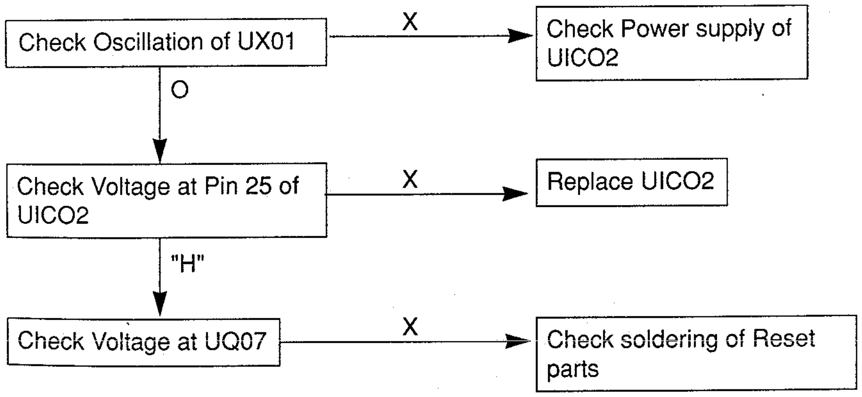
10. LEAD-IN NOT WORKING


Check waveform of DSP Pin 23,24,25
X
Check DSP soldering
O
O
Check ssp soldering
O
Check soldering of RK AMP
O
Check CLV Adjustment
O
Check F.BIAS (VR1703) Adjustment
O
Check E.F Balance Adjustment

11. NO AUDIO


Check waveform at Pin 76~ 80 of IC5990
X
Check DSP Power Supply and Pin short
X
Replace DSP
O
Check signal of Pin 1,20 of IC0316
X
Check DAC power spply and Pin short
X
Replace DAC
O
Check signal of Pin 2,19 of IC9270
X
Check Voltage at Pin 4 of IC9270
"L"
Replace IC9270
"H"
Check Voltage UQ03,04
"H"
Check Voltage at Pin 20 of UIC02
"H"
Replace UIC02

12. DISPLAY NOT WORKING


Check Oscillation of UX01
X
Check Power supply of UICO2
O
Check Voltage at Pin 25 of UICO2
X
Replace UICO2
"H"
Check Voltage at UQ07
X
Check soldering of Reset parts

■ ADJUSTMENT

ADJUSTMENT PROCEDURE

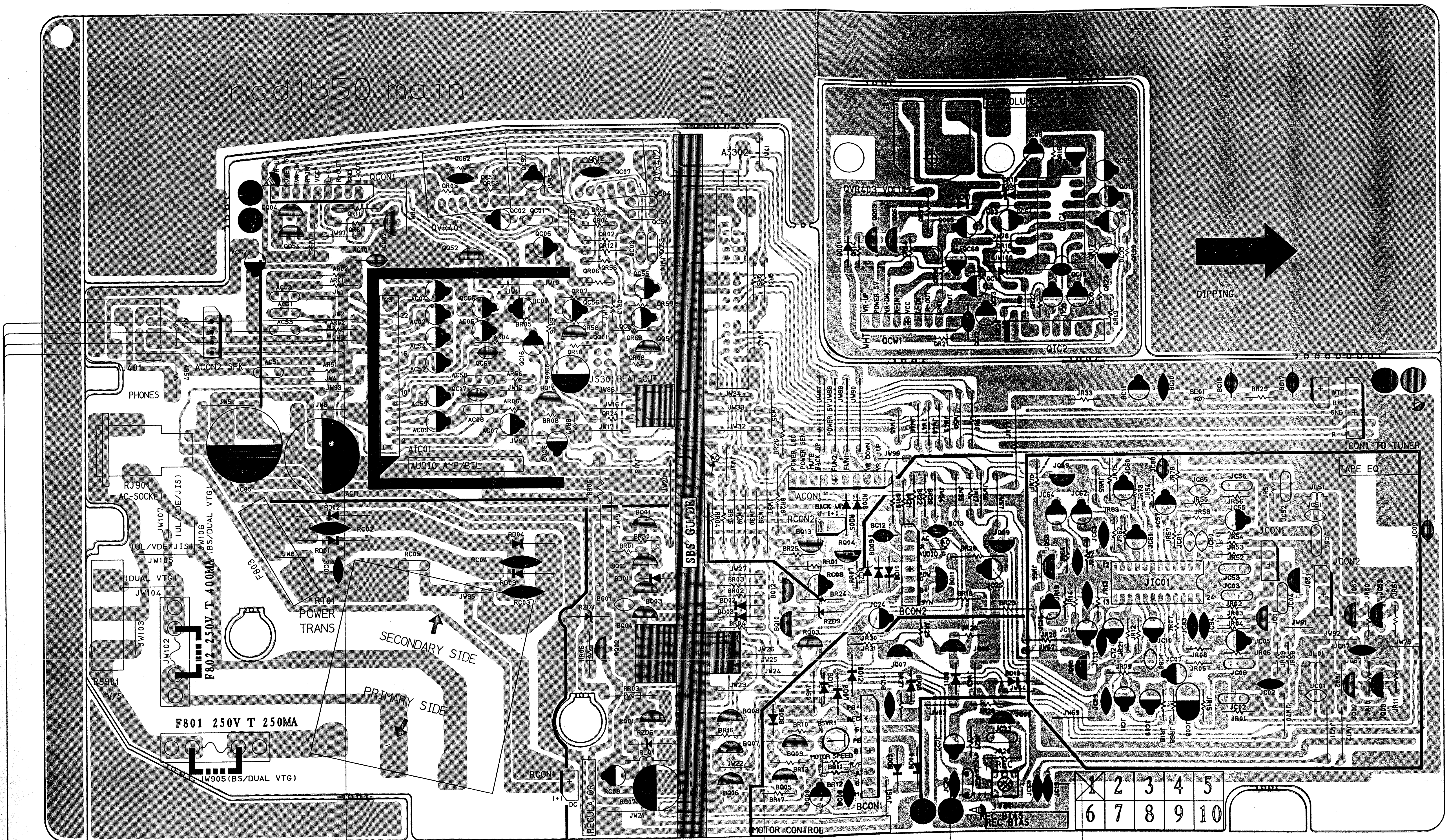
INSTRUMENT AND TOOLS

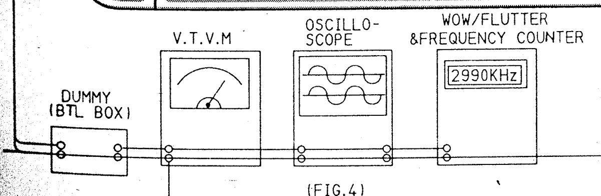
1) FM, AM STANDARD SIGNAL GENERATOR (SSG)
2) OSCILLOSCOPE
3) FREQUENCY COUNTER
4) VTVM
5) LOOP ANTENNA
6) DUMMY LOAD (6 OHM)
7) DIGITAL TESTER

BEFORE MAKING ADJUSTMENT

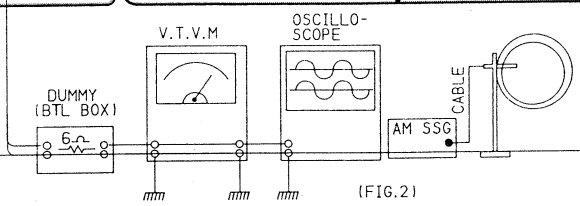
1) Check the power source voltage.
2) Select desired Band and Function.
3) Set Tone Control at mid position
4) Modulate AM to 30% amplitude with 400Hz signal and FM to 22.5MHz deviation with 400Hz signal.
5) Set Volume Control to approximately 100mW (6ohm)

1. MAIN SECTION


rcd1550.main
QCON1
QVR401
QVR402
AS302
QVR403 VOLUME
BS VOLUME
QCW1
QIC2
DIPPING
AIC01
AUDIO AMP/BTL
ACON2 SPK
AJ401
PHONES
JS301 BEAT-CUT
RJ901
AC-SOCKET
JW107 (UL/VDE/JIS)
JW106 (BS/DUAL VTG)
JW105 (UL/VDE/JIS)
JW104 (DUAL VTG)
JW103
JW102
F803
F802 250V T 400MA
F801 250V T 250MA
RS901
V/S
JW905 (BS/DUAL VTG)
RT01
POWER TRANS
SECONDARY SIDE
PRIMARY SIDE
SBS GUIDE
RCON1
DC
REGULATOR
ACON1
BCON1
BCON2
RCON2
BSVR1
MOTOR SPEED
MOTOR CONTROL
JT01
REC BIAS
JCON1
JCON2
JIC01
TAPE EQ
ICON1 TO TUNER
1 2 3 4 5
6 7 8 9 10

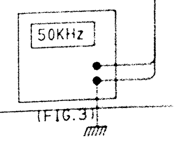

DUMMY (BTL BOX)
V.T.V.M
OSCILLO-SCOPE
WOW/FLUTTER &FREQUENCY COUNTER
2990KHz

(FIG.4)


DUMMY (BTL BOX)
6Ω
V.T.V.M
OSCILLO-SCOPE
AM SSG
CABLE

(FIG.2)

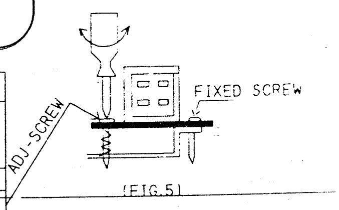
TAPE SPEED ADJUSTMENT	
Insert a test tape into DECK A and adjustment for 2990Hz leading on FREQUENCY COUNTER (FIG.4)	
TEST TAPE	
ADJ-parts	BSVR1
ADJ-Range	2985-2995Hz



(FIG.3)

RECORD BIAS ADJUSTMENT	
Press [RECORD]button of DECK A and adjustment for a 51KHz leading on FREQUENCY COUNTER(FIG.3)	
ADJ-parts	JT01
ADJ-Range	50.5-51.5KHz

HEAD AZIMUTH ADJUSTMENT	
Adjustment for maximum output and for the same channel phase (FIG.5)	
TEST TAPE	MTT-114N(10KHz)
ADJ-Parts	A.B DECK screw


ADJ-SCREW
FIXED SCREW

(FIG.5)

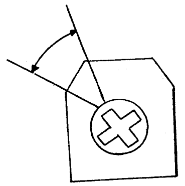
2. CD TUNER SECTION

CD SECTION

1) CLV ADJUSTMENT

10:1 damping probe.

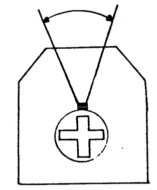
(1) Turn power on without loading a disc.
(2) Connect S2 (Asymetry : short)
(3) Connect TP5 to GND and TP2 to positive terminal on the Frequency Counter.
(4) Adjust VR 1702 so that the frequency Counter reads 4. 31 MHz ± 0.01 MHz.
(5) Disconnect S2



VR1702

2) FOCUS BIAS ADJUSTMENT

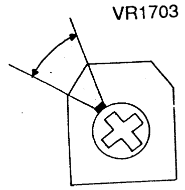
(1) Turn power on without loading a disc.
(2) Set Oscilloscope Vol/Div to DC 100mv.
(3) Connect Vref to GND and TP3 (F.E) to positive terminal on the oscilloscope.
(4) Adjust VR1703 so that the voltage is 200 mV DC on the oscilloscope.



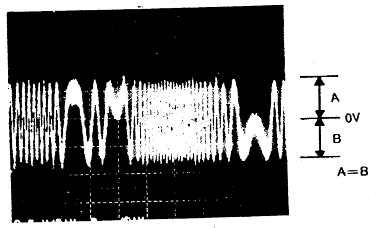
VR1703

3) EF BALANCE ADJUSTMENT (Power On)

(1) Turn power on with loading a disc.
(2) Set Oscilloscope Time/Div to 2mS.
(3) Set Oscilloscope Volt/Div to 50mV.
(4) Connect Vref to GND and TP4 (T.E) to positive terminal on the oscilloscope.
(5) Adjust VR 1704 all the way counter clockwise. (Intermihent sound)
(6) Adjust VR 1701 so that the waveform is equally symmetrical above and below (A=B) the center.
(7) Adjust VR 1704 so that sound comes out normally.

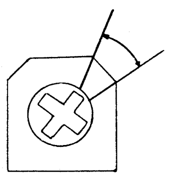


VR1701



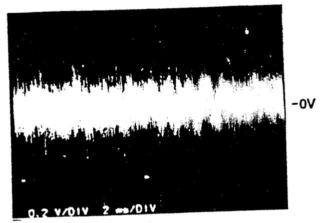
4) TRACKING GAIN ADJUSTMENT (Power On)

(1) Turn power on with loading a disc.
(2) Connect Vref to GND and TP4 (T.E) to positive terminal on the oscilloscope.
(3) Press PLAY/PAUSE.
(4) Adjust VR 1704 so that wareform is as shown on the figure below.



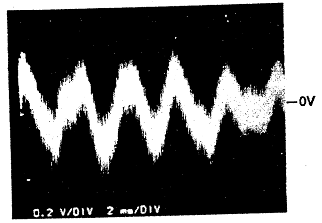
VR1704

(NORMAL WAVEFORM)



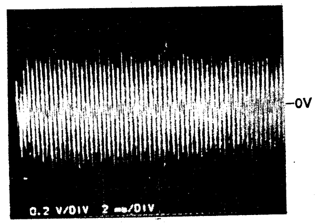
VOLT/DIV : 0.2V
TIME/DIV : 2mS

(LOW TRACKING GAIN)



VOLT/DIV : 0.2V
TIME/DIV : 2mS

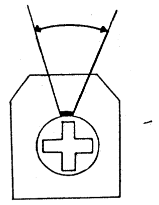
(HIGH TRACKING GAIN)



VOLT/DIV : 0.2V
TIME/DIV : 2mS

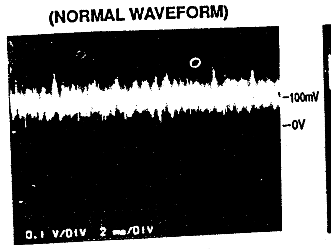
5) FOCUS GAIN ADJUSTMENT (Power On)

(1) Turn power on withe loading a disc.
(2) Connect Vref to GND and TP3 (E.F) to positive terminal on the oscilloscope.
(3) Press PLAY/PAUSE.
(4) Adjust VR 1705 so that wavefrom is as shown in the figure below.



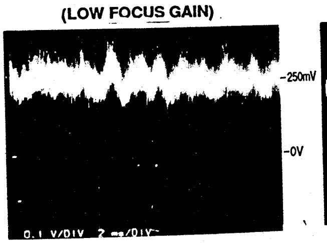
VR1705

(NORMAL WAVEFORM)



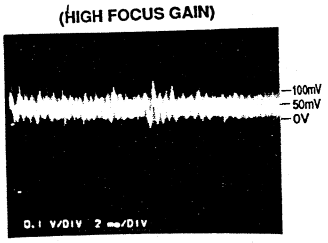
VOLT/DIV : 0.1V
TIME/DIV : 2mS

(LOW FOCUS GAIN)

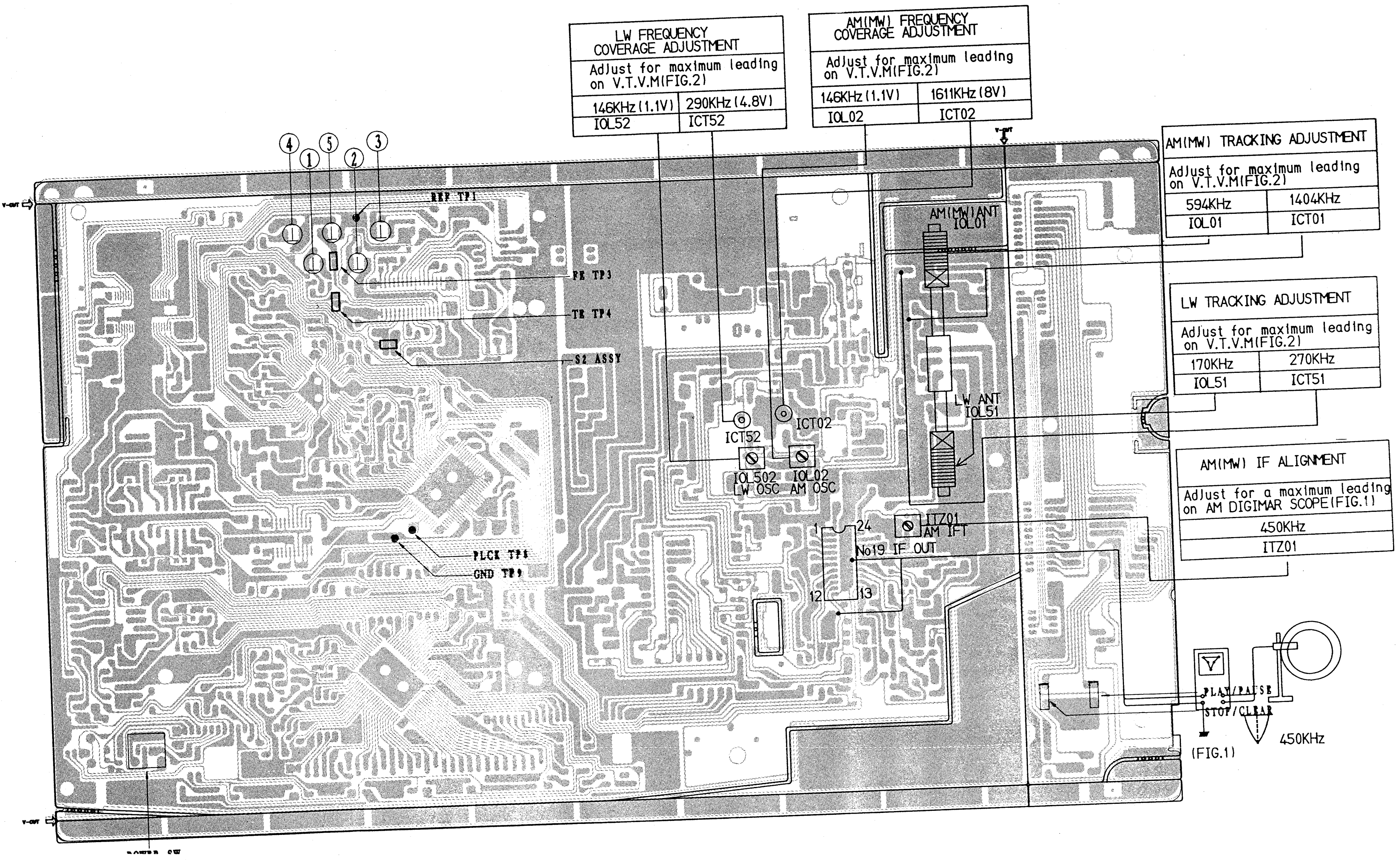


VOLT/DIV : 0.1V
TIME/DIV : 2mS

(HIGH FOCUS GAIN)



VOLT/DIV : 0.1V
TIME/DIV : 2mS



(FIG.1)

LW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for maximum leading on V.T.V.M(FIG.2)	
146KHz(1.1V)	290KHz(4.8V)
IOL52	ICT52

AM(MW) FREQUENCY COVERAGE ADJUSTMENT	
Adjust for maximum leading on V.T.V.M(FIG.2)	
146KHz(1.1V)	1611KHz(8V)
IOL02	ICT02

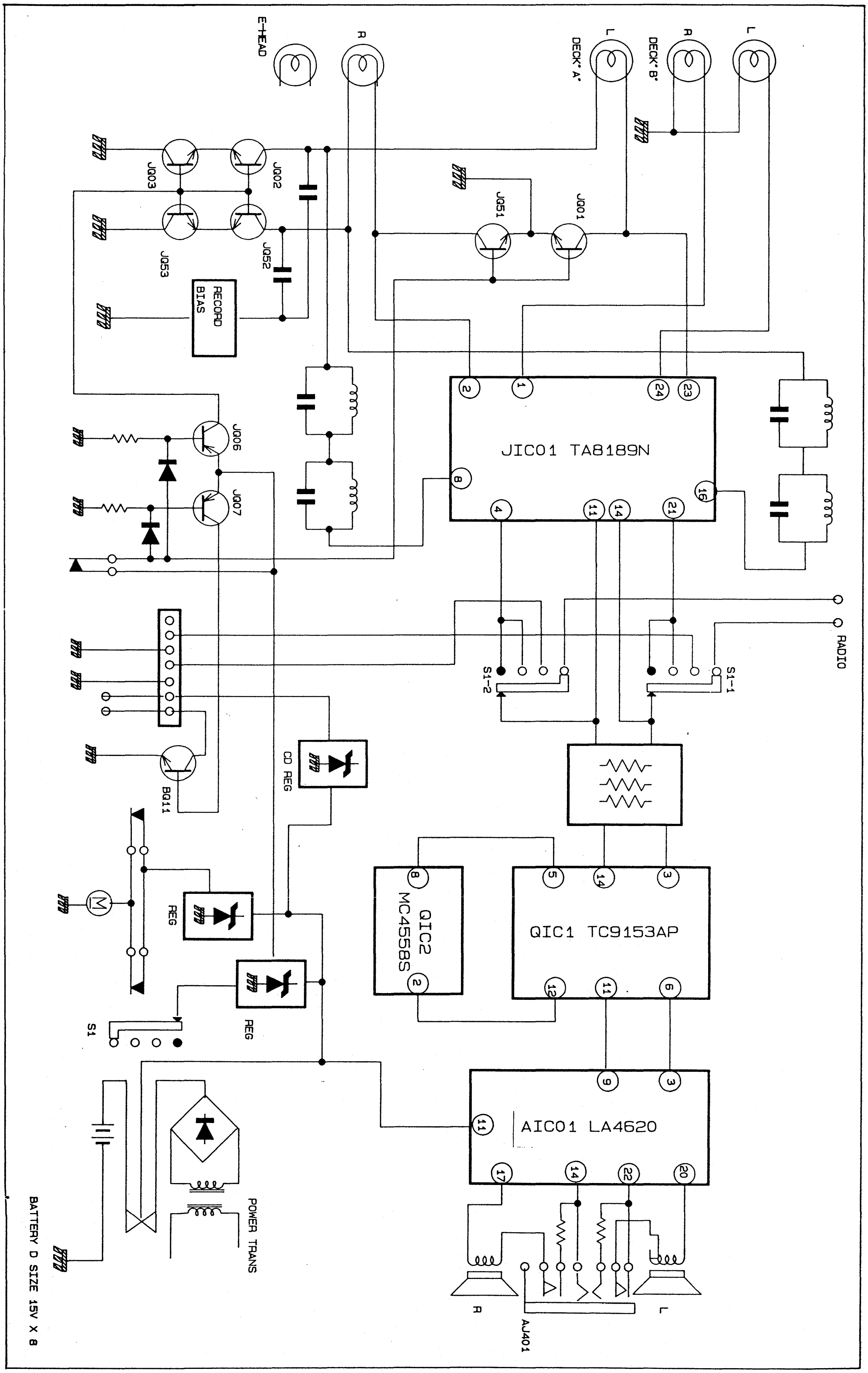
AM(MW) TRACKING ADJUSTMENT	
Adjust for maximum leading on V.T.V.M(FIG.2)	
594KHz	1404KHz
IOL01	ICT01

LW TRACKING ADJUSTMENT	
Adjust for maximum leading on V.T.V.M(FIG.2)	
170KHz	270KHz
IOL51	ICT51

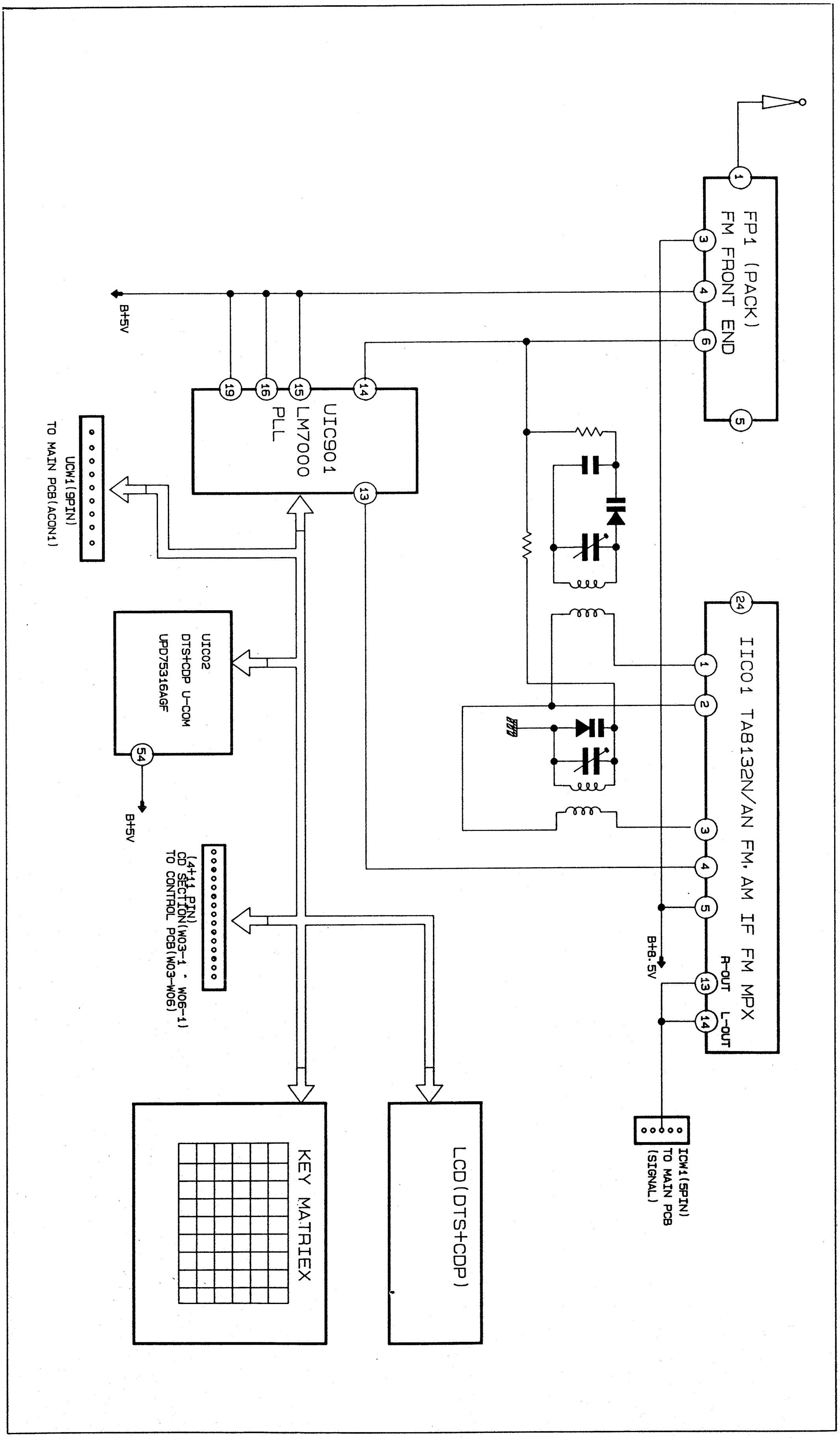
AM(MW) IF ALIGNMENT
Adjust for a maximum leading on AM DIGIMAR SCOPE(FIG.1)
450KHz
ITZ01

■ BLOCK DIAGRAMS

1. MAIN SECTION


E-HEAD
R
DECK'A'
L
DECK'B'
R
L
JQ02
JQ03
JQ52
JQ53
JQ51
JQ01
RECORD BIAS
JIC01 TA8189N
JQ06
JQ07
RADIO
S1-1
S1-2
CD REG
BQ11
REG
REG
S1
QIC2 MC4558S
QIC1 TC9153AP
AIC01 LA4620
POWER TRANS
BATTERY D SIZE 15V X 8
AJ401
R
L

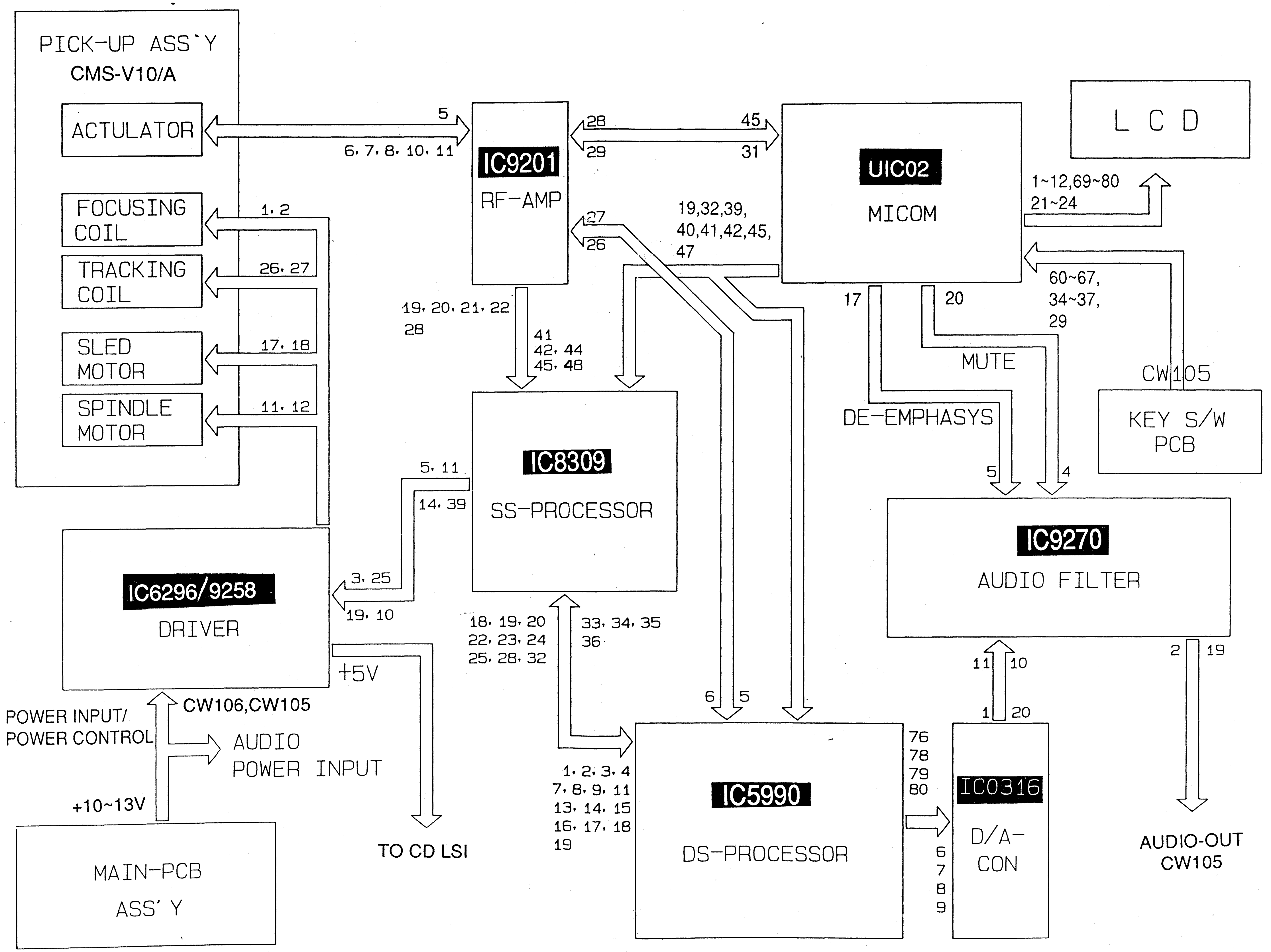
2. TUNER SECTION


FP1 (PACK)
FM FRONT END
1
3
4
6
5
B+5V
UIC901
LM7000
PLL
19
16
15
14
13
UCM1(9PIN)
TO MAIN PCB(ACON1)
UIC02
DTS+CDP U-COM
UPD75316AGF
54
B+5V
(4+11 PIN)
CD SECTION(W03-1 · W06-1)
TO CONTROL PCB(W03-W06)
IIC01 TA8132N/AN FM. AM IF FM MPX
24
1
2
3
4
5
13
14
R-OUT
L-OUT
B+8.5V
ICM1(5PIN)
TO MAIN PCB
(SIGNAL)
LCD(DTS+CDP)
KEY MATRIEX

3. CD SECTION

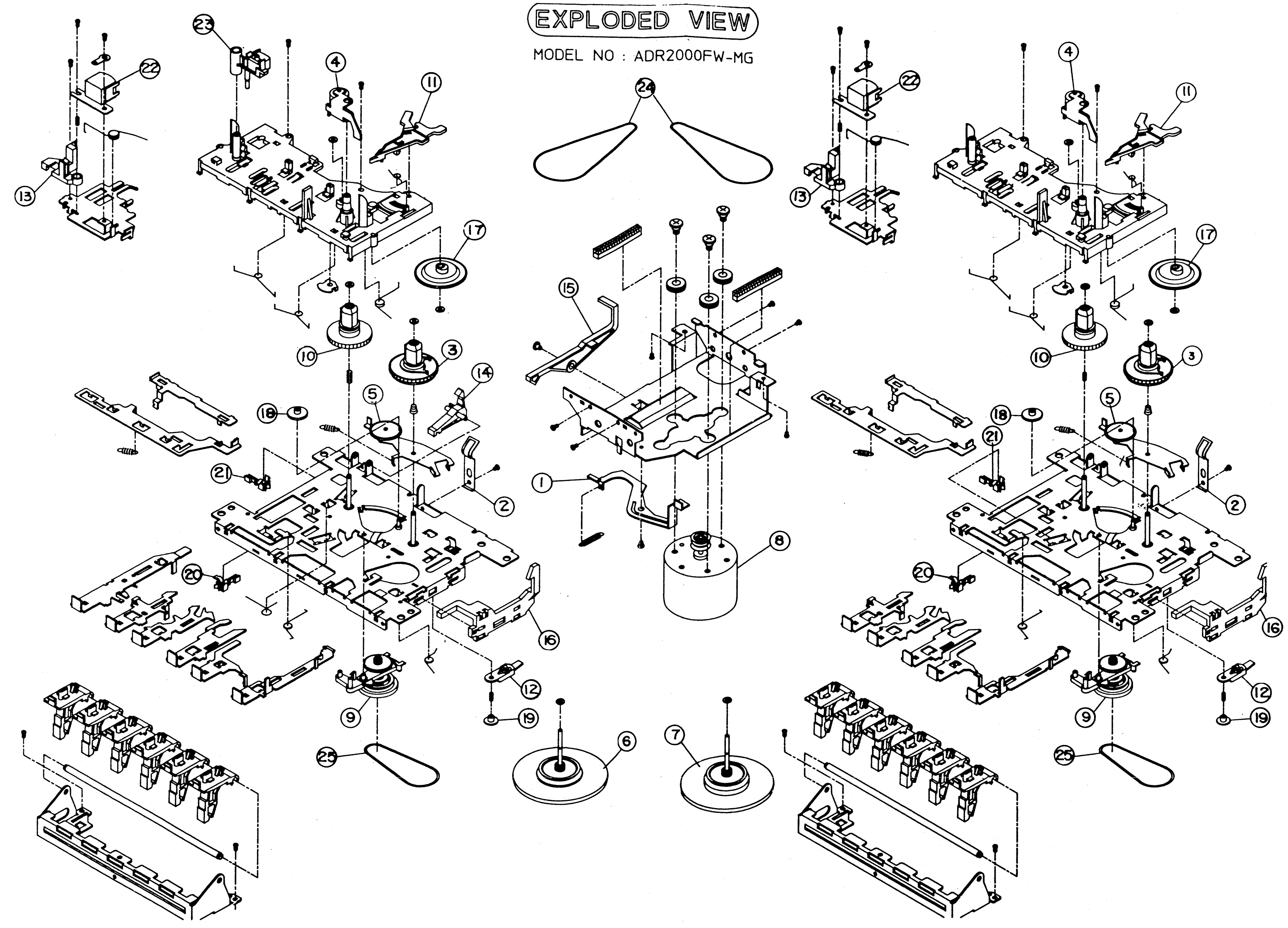
CDP BLOCK-DIAGRAM

G3SCHIP CD-PACK ASSY


PICK-UP ASS`Y
CMS-V10/A
ACTULATOR
FOCUSING COIL
TRACKING COIL
SLED MOTOR
SPINDLE MOTOR
5
6, 7, 8, 10, 11
1, 2
26, 27
17, 18
11, 12
IC9201
RF-AMP
28
29
45
31
27
26
19, 20, 21, 22
28
41
42, 44
45, 48
19,32,39,
40,41,42,45,
47
UIC02
MICOM
1~12,69~80
21~24
L C D
17
20
60~67,
34~37,
29
MUTE
DE-EMPHASYS
CW105
KEY S/W
PCB
5
4
IC8309
SS-PROCESSOR
5, 11
14, 39
3, 25
19, 10
IC6296/9258
DRIVER
+5V
IC9270
AUDIO FILTER
18, 19, 20
22, 23, 24
25, 28, 32
33, 34, 35
36
6
5
11
10
1
20
2
19
POWER INPUT/
POWER CONTROL
CW106,CW105
AUDIO
POWER INPUT
+10~13V
MAIN-PCB
ASS' Y
TO CD LSI
1, 2, 3, 4
7, 8, 9, 11
13, 14, 15
16, 17, 18
19
IC5990
DS-PROCESSOR
76
78
79
80
6
7
8
9
IC0316
D/A-
CON
AUDIO-OUT
CW105

■ DECK EXPLODED VIEW

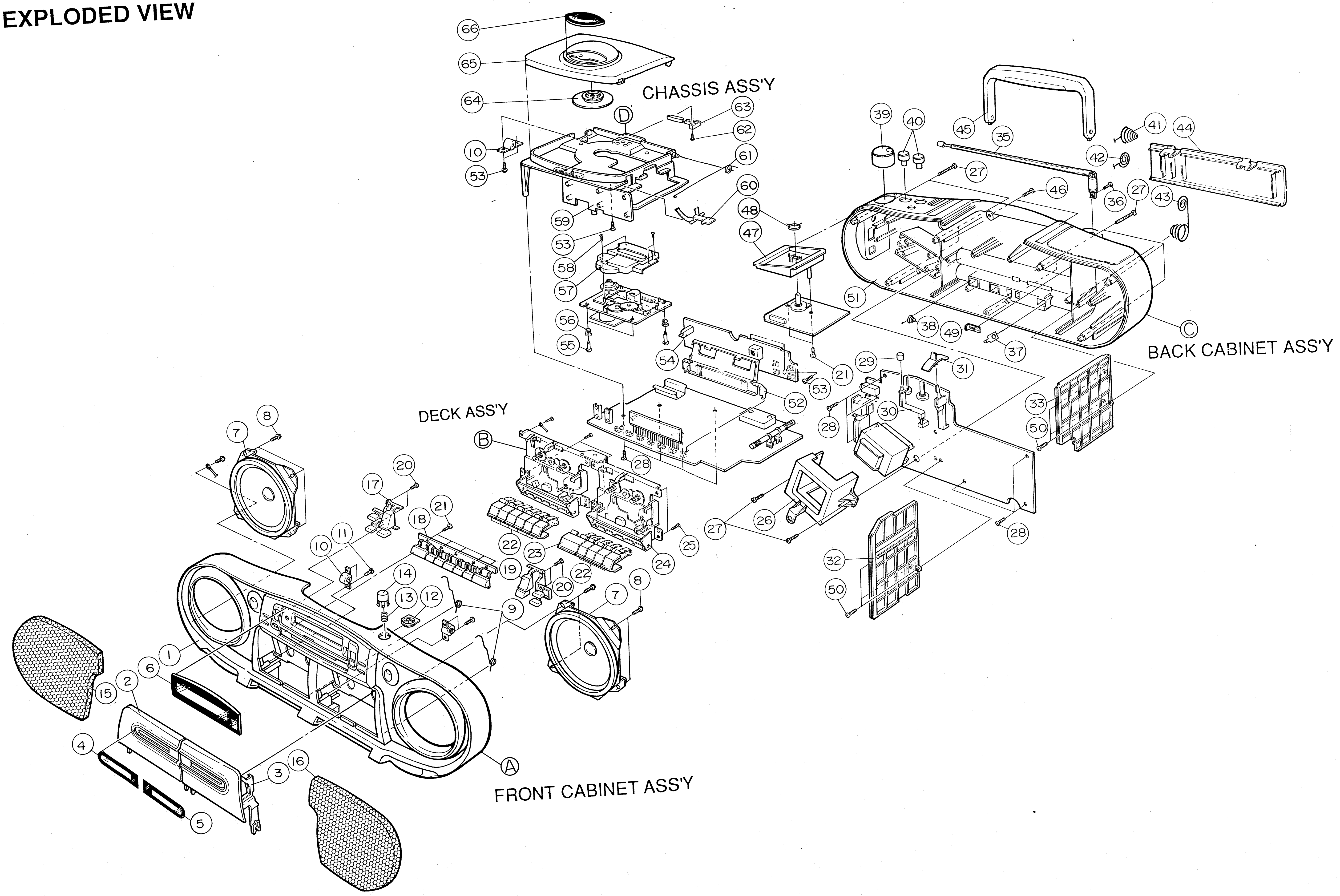
1. CASSETTE DECK EXPLODED VIEW (ADR2000FW-MG)



• PARTS LIST

LOCATION	CODE No.	DESCRIPTION & SPECIFICATION	Q'TY	REMARK
	17159-0049-00	DECK-CASSETTE ; ADR2024FW RCD1550	1	
1	10000-607-186	LEVEL-SYNCHRO ; 11134-01280AA	1	
2	10000-607-146	SP PACK ; 51299-02506XC	2	
3	10000-607-101	TAKE UP REEL ASSY ; ADR28-010	2	
4	10000-607-103	PINCH ARM ASSY ; ADR26-001	2	
5	10000-607-104	IDLER ARM ASSY ; ADR02-042	2	
6	10000-607-105	FLYWHEEL GEAR S ASSY ; ADR15-021	1	
7	10000-607-106	FLYWHEEL GEAR D ASSY ; ADR15-022	1	
8	10000-502-020	MOTOR ; EG530YD2B	1	
9	10000-607-108	FR ARM ASSY	2	
10	10000-607-109	SUPPLY REEL GEAR ASSY	2	
11	10000-607-117	ARM-SENSOR 11102-00530AA	2	
12	10000-607-111	PAUSE LOCK CAM	2	
13	10000-607-113	HEAD BASE M	2	
14	10000-607-145	LEVEL REC SAFETY ; 11134-01000AA	1	
15	10000-607-184	LEVEL-RELEASE ; 11134-01240AA	1	
16	10000-607-160	LEVEL EJECT(F) ; 11134-01220AA	2	
17	10000-607-114	CAM GEAR	2	
18	10000-607-115	F.F GEAR ; 11128-00055AA	2	
19	10000-607-116	PAUSE CAP ; 11116-00011AA	2	
20	10000-607-178	LEAF SW(MAIN) ; MSW1541XACV	2	
21	10000-607-179	LEAF SW(REC)MSW1716CV	1	
22	10000-523-008	R/P HEAD ; MS15R-AA2N1	2	
23	10000-607-162	ARM-MAGNETIC ; 11102-00520AA	1	
24	10000-607-159	BELT MAIN ; 59.7PI X 1.0T	2	
25	10000-607-156	BELT SUB ; 34.7 PIX 1.0T	2	

■ EXPLODED VIEW


CHASSIS ASS'Y
DECK ASS'Y
BACK CABINET ASS'Y
FRONT CABINET ASS'Y
A
B
C
D
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
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65
66

■ PARTS LIST

1. MAIN PCB SECTION

LOCATION	CODE No.	DESCRIPTION & SPECIFICATION	Q'TY	REMARK
HEAT SINK	11123-0012-00	HEAT SINK; AI,NTR RCD1400 T2.0	1	
VR401, 402	11209-804-010	VR DOUBLE; RK 16K1210 Z02 53A	2	
BSVR1	11249-102-104	VR SEMI TAPE H; DVN-DJA A03B23(2K)	1	
JC80, 81	11407-017-101	C-CERAMIC; CC45T SI, 50V 100- J	2	
JC01,51	11407-018-331	C-CERAMIC; CC45T SI,50V 330 -K	2	
JC85, 86	11417-329-222	C-CERAMIC,HK; CK45T D 50V 0.0022M M	2	
BC01	11417-344-223	C-CERAMIC,HK; CK45T F 50V 0.022M- Z	1	
JC88, 89	11447-619-152	CONDENSER AXIAL,LEAD; 16V EP050 X 1500	2	
QC07, 57	11447-619-392	CONDENSER AXIAL,LEAD; 16V EP050 X 3900	2	
RC01,02,03,04	11448-010-223	CONDENSER AIXAL LEAD; 25V TP 050F22000	13	
BC06,10,14,15,17				
JC02,87,QC12,18				
JC19,69,83,84,13,63,00	11449-518-101	CONDENSER AXIAI,LEAD; 50V UP050 B100 K	8	
AC10				
BC12,13,QC17,67	11449-518-102	CONDENSER AXIAL,LEAD; 50V UP050 B1000-K	4	
JC20	11449-518-471	CONDENSER AXIAL,LEAD; 50V UP050 B470-K	1	
AC08,58,RC05	11505-714-104	C-POLYESTER; CQ921TM 50V 0 1M-K	3	
JC04,54,03,53	11505-714-122	C-POLYESTER; CQ921T M 50V 0.0012M-K	4	
JC06,56	11505-714-123	C-POLYESTER; CQ921T M 50V 0.012M-K	2	
JC02,52,23	11505-714-182	C-POLYESTER; CQ921T M 50V 0.0018M-K	3	
QC03,53	11505-714-272	C-POLYESTER; CQ921T M 50V 0.0027M-K	2	
QC01,51	11505-714-273	C-POLYESTER; CQ921T M 50V 0.02M-K	2	
QC04,54,AC01,51,03,53	11505-714-333	C-POLYESTER; CQ921T M 50V 0.033M-K	6	
JC21	11505-714-682	C-POLYESTER; CQ921T M 50V 0.0068M-K	1	
JC09,AC02,04,52,54	11608-102-104	C-ELECTROLYTIC; SMS T 10V 100M(5X11)	8	
AC09,59,07				
QC70	11608-102-471	C-ELECTROLYTIC; SMS T 10V 470M (8X11.5)	1	
BC02	11608-102-473	C-ELECTROLYTIC; SMS T 10V 47M (5X11)	1	
JC24,BC11,QC99	11608-103-104	C-ELECTROLYTIC; SMS T 16V 100M (6.3X11)	3	
QC13,08,JC08,RC06	11608-103-221	C-ELECTROLYTIC; SMS T 16V 220M (8X11.5)	4	
AC06	11608-103-223	C-ELECTROLYTIC; SMS T 16V 22M (5X11)	1	
JC60	11608-103-333	C-ELECTROLYTIC; SMS T 16V 33M (5X11)	1	
RC07,08	11608-103-471	C-ELECTROLYTIC; SMS T 16V 470M (10X12.5)	2	
JC25,10	11608-104-103	C-ELECTROLYTIC; SMS T 25V 10M (5X11)	2	
JC22,55,05,62,12,15	11608-104-473	C-ELECTROLYTIC; SMS T 25V 47M (5X11)	8	
BC09,AC62				
JC57,61,64,11,14,07	11608-106-102	C-ELECTROLYTIC; SMS T 50V 1M(5X11)	16	
QC61,14,64,11,15,65				
QC16,66,68,13				
QC02,52	11608-106-158	C-ELECTROLYTIC; SMS T 50V 0.15M(5X11)	2	
QC05,55,56,06	11608-106-221	C-ELECTROLYTIC; SMS T 50V 0.22M(5X11)	4	
QC09	11608-106-222	C-ELECTROLYTIC; SMS T 50V 2.2M(5X11)	1	
QC16	11608-106-472	C-ELECTROLYTIC; SMS T 50V 4.7M(5X11)	1	
AC05,11	11609-154-332	C-ELECTROLYTIC; SMS 25V 3300M(16X31.5)	2	
JIC01	12109-401-840	IC-PRE/REC; TA8189N	1	
QICI	12119-101-830	IC-E/C VR ; TC9153 AP	1	
QIC2	12119-401-630	IC-DUAL OPAMP ; MC4558S	1	
JQ06,07,BQ05	12149-101-520	TRANSISTOR; KSA733 Y,TAPE	3	
BQ01,09,12	12149-101-560	TRANSISTOR; KSA708 Y,TAPE	3	
JQ05,QQ01,51	12149-301-840	TRANSISTOR; KSC900 I, TAPE	3	
JQ01,51,BQ02,03,04,	12149-301-900	TRANSISTOR; KSC 945 Y, TAPE	7	
QQ03,QQ53				
JQ02,52,03,53,RQ04	12149-301-930	TRANSISTOR; KSC1008 Y, TAPE	5	
RQ01	12149-401-150	TRANSISTOR; KSD 471 Y,TAPE	1	
BQ10,RQ02 ⚠	12149-401-900	TRANSISTOR; KSD882-0	2	
RQ03	12159-301-330	TR DIGITAL; KSR2003, TAPE	1	
JQ09,59,QQ02,52	12159-301-790	TR DIGITAL; KSR1009	4	
BQ11,06,08,13,JQ08,58	12159-301-800	TR DIGITAL; R100/108M/124XS	6	
BQ07	12159-301-810	TR DIGITAL; KSR2007	1	
RD05	12169-101-140	DIODE-1K 188FM 1TP	1	
BD04,05	12169-201-090	DIODE-RECTIFIER; IN 4002,TAPE	2	
RD01,02,03,04 ⚠	12169-209-260	DIODE RECT; IN5402 200V 3A FORMING	4	
BD02,03,01,06,07,08	12169-301-290	DIODE-SW; ISS53/IN4148,CT;6PF	17	
BD09,10,11,12,13,14				
QD01,02,03,51,RD06				
RZD6,7 ⚠	12169-403-340	DIODE-ZENER; UZP 9.1B/RD9.1F 1W	2	
RZD09	12169-403-740	DIODE-ZN; UZP 13B 12.4 14.1	1	
RZD8	12169-404-100	DIODE-ZN; RD6.8FBUZP6.8B	1	
JL01,51	12429-306-113	COIL-BIAS TRAP; FB895 85A	2	
RL01,BL01	12429-508-100	COIL-CHOKE; AX 10UH 04	2	
JT01	12619-012-811	COIL-SEVEN CAN; 1R65HH I BIAS	1	
	13078-499-220	CONNECTOR WIRE/B,S; 5264-09/5395 09 25	1	
J401	13339-101-502	JACK-HEADPHONE; SHQ9085-01 142(GRN)	1	
CW801	13349-103-053	CONNECTOR-WAFER; STICK5267 05A 5P	2	
DC,BACK UP	13349-512-561	CONNECTOR-WAFER; STICK 5267 02A 2P TYP	2	
CW301,901	13349-512-562	CONNECTOR-WAFER; STICK 5267 04A 4P TYP	3	
CW201,402,501	13349-512-566	CONNECTOR-WAFER; STICK 5267 09A 9P TYP	1	
CW601	13349-512-568	CONNECTOR-WAFER; STICK 5267 07A 7P TYP	1	
CW302	13349-527-502	CONNECTOR-WAFER; STICK 5267 03A 3P	1	
BEAT-CUT	13529-920-220	SWITCH-PUSH; R2320615 2C 2P	1	
VR403	A3012-0007	SW-ROTARY; 1C2P RK 16K1170 002 ZZZ	1	
S302	A3014-0029	SW-LEVER; 6C 4P 15MT ASH 00640023	1	
AIC01	B4012-0066	IC-LINEAR; LA4620 DIP AUDIO	1	
RT01 ⚠	12869-221-830	POWER-TRANS; EI 57 x 32 110/220V KS	1	OPTION
RT01 ⚠	12869-221-810	POWER-TRANS; EI 57 x 32 120/220V UL/CSA	1	OPTION
RT01 ⚠	12869-221-860	POWER-TRANS; EI 57 x 32 230/240V VDE/BS	1	OPTION
RT01 ⚠	12869-225-900	POWER-TRANS; EI 57 x 32 115/230V AKA1	1	OPTION
RJ901 ⚠	13354-501-320	SOCKET-2P, SW(CP); HSC 1466-01-0101(PIN)	1	OPTION
RJ901 ⚠	13354-501-310	SOCKET-2P,SW(EP); HSC1463-01-0101(PIN)	1	OPTION
F801 ⚠	B3065-0113	FUSE; TL250V 250mA 5 x 20	1	OPTION
F802 ⚠	B3065-0110	FUSE; TL250V 400mA 5 x 20	1	OPTION

2. CD

L
HEAT S
L3000
CW01
CW10
CW10
CW10
CW05
CW10
CW10
CW10
XF17
JC02,
R170
R172
R190
R191
R190
R172
R171
R17
R17
R190
R17
R19
R17
R17
R17
R17
R19
R19
R4
R1
R1
R1
R1
R1
R1
R1
R1
C1
C1
C

2. CD PCB SECTION

LOCATION	CODE No.	DESCRIPTION & SPECIFICATION	Q'TY	REMARK
HEAT SINK	11124-0008-00	HEAT SINK;BSS T0.5 NTR RCD 1360	1	
	11533-0005-00	LEVER-EJECT CD;POM BLK RCD1400	1	
	12201-0025-00	CHASSIS-CD;ABS BLK RCD1400	1	
L3000	12602-214-518	COIL-SPRING;SBT-0260TF(SBT-0460TF) TA	1	
CW01	13029-321-120	CONNECTOR-WIRE;5264 02 1007#26 200M/M	1	
CW104	13052-902-110	CONNECTOR-WIRE,BN;PHR 08/PHR-08 RED1	1	
CW102	13070-026-120	CONNECTOR-WIRE,BN;51004 06/51004-06 1	1	
CW103	13076-628-115	CONNECTOR-WIRE,BN;PHR-08/PHR-08 BLK 1	1	
CW05	13078-377-120	CONNECTOR-WIRE/B,S;5264 07/JC25 07 10	1	
CW102	13349-119-060	CONNECTOR-WAFER;53014 0610,2M/M,MOLEX	1	
CW103	13349-143-080	CONNECTOR RED;8PIN PITCH 2MM(2011P08V)	1	
CW104	13349-144-080	CONNECTOR WHITE;8PINCH 2MM(2011P0)	1	
	13564-601-060	SWITCH-LEAF;MSW 0080 CNBKP	1	
XF1701	14539-401-050	X-TAL;HC 18U 16 9344 MH	1	
JC02,03,04	11119-101-000	R-CHIP;SCR2012 PA.P1/80 0 J	3	
R1702,1734	11119-101-102	R-CHIP;MCR10,1K-J	2	
R1728,1114	11119-101-103	R-CHIP;MCR10,2012S 10K-J	2	
R1907R,L,R1111,1117,1713	11119-101-104	R-CHIP;MCR10,2012S 100K-J	5	
R1911R,R1911L,R1718	11119-101-105	R-CHIP;MCR10,2012S 1M J	3	
R1903R,R1903L	11119-101-123	R-CHIP;SCR2012J123 100CT	2	
R1720,1725,2000	11119-101-154	R-CHIP;MCR10,2012S 150K J	3	
R1716	11119-101-184	R-CHIP;SCR2012 180K-J	1	
R1704	11119-101-220	R-CHIP;SCR2012J 220 100CT	1	
R1717,4001	11119-101-222	R-CHIP;MCR 10,2012S 2.2K-J	2	
R1901R,1901L,1701,9000	11119-101-223	R-CHIP;MCR10,2012S 22K-J	4	
R1768	11119-101-272	R-CHIP;MCR10,2012S 2.7K-J	1	
R1902R,1902L	11119-101-273	R-CHIP;MCR10,2012S 27K-J	2	
R1791	11119-101-332	R-CHIP;SCR2012S 3.3K J	1	
R1724	11119-101-333	R-CHIP;SCR2012J 333 100CT	1	
R1729	11119-101-434	R-CHIP;MCR 10,2012S 430K J	1	
R1726,1721,1792	11119-101-473	R-CHIP;MCR 10,2012S 47K J	3	
R1906R,R1905R.R1904R, R1906L,R1905L.R1904L	11119-101-562	R-CHIP;MCR 10,2012S 5.6K J	6	
R4002	11119-101-682	R-CHIP;SCR2012 682 100CT	1	
R1803	11119-101-683	R-CHIP;SCR2012J 683 100CT	1	
R1212	11119-101-822	R-CHIP;SCR2012 822 100CT	1	
R1727	11119-101-823	R-CHIP;SCR2012 823J	1	
R1719	11119-101-824	R-CHIP;SCR2012 824J	1	
R1731,3333	11119-102-473	R-CHIP;SCR2012 473F	2	
R1714,1712	11119-201-113	R-CHIP;SCR10,2012J 11K J	2	
R1705	11119-201-820	R-CHIP;SCR2012 1/10W 82 J	1	
R1703	11119-203-203	R-CHIP;SCR 2012J 203 100CT	1	
C1716	11129-001-104	C-CHIP CERAMIC;2012 SI, 104 K 50V	1	
C1712,1711	11129-001-220	C-CHIP CERAMIC;SMC2012 220K	2	
C4200	11129-001-331	C-CHIP CERAMIC;C2012 SI, 1H 331K	1	

LOCATION	CODE No.	DESCRIPTION & SPECIFICATION	Q'TY	REMARK
C1724,C1717,1703	11129-004-102	C-CHIP CERAMIC;C2012 X 7R 1H 102K	3	
C1721,1736,1739,1714,4000	11129-004-103	C-CHIP CERAMIC;SMC2012B 103K 500P	5	
C1701	11129-004-222	C-CHIP CERAMIC;C2012X7R 1H222K	1	
C1903R,C1903L	11129-004-471	C-CHIP CERAMIC;SMC2012B 471K 500P	2	
C4001,1723	11129-004-473	C-CHIP CERAMIC;C2012B 473K	2	
C1732	11129-008-470	C-CHIP CERAMIC;C2012CH47P	1	
C4002,4003	11129-019-561	C-CHIP CERAMIC;SMC2012 PA P 16V 561K	2	
VR1701,1705,1704	11249-102-044	VR-SEMI TAPE H;DVN-DJA A03B24(20K)	3	
VR1703	11249-102-064	VR-SEMI TAPE H;DVN-DJA A03B54(50K)	1	
VR1702	11249-102-104	VR-SEMI TAPE H;DVN-DJA A03B23(2K)	1	
C1911	11447-910-103	CONDENSER AXIAL-LEAD;16V EP050 Y1000	1	
C1708,1709	11505-713-103	C-POLYESTER;CQ921T M 50V 0.01M J	2	
C1076,1720	11505-713-333	C-POLYESTER;CQ921T M 50V 0.033M-J	2	
C1729,1726,1725	11505-714-104	C-POLYESTER;CQ921T M 50V 0.1M K	3	
C1902L,C1902R	11505-714-122	C-POLYESTER;CQ921T M 50V 0.0012M K	2	
C1904L,1904R	11505-714-152	C-POLYESTER;CQ921T M 50V 0.0015M K	2	
C1722	11505-714-222	C-POLYESTER;CQ921T M 50V 0.0022M K	1	
C1743	11505-714-472	C-POLYESTER;CQ921T M 50V 0.0047M K	1	
C1734	11505-714-682	C-POLYESTER;CQ921T M 50V 0.0068M K	1	
C1731	11505-714-683	C-POLYESTER;CQ921T M 50V 0.068M K	1	
C2220	11608-102-104	C-ELECTROLYTIC;SMS T 10V 100M(5X11)	1	
C2222,1910,1909,3003	11608-102-224	C-ELECTROLYTIC;SMS T 10V 220M(6.3X11)	4	
C1707,1907	11608-102-473	C-ELECTROLYTIC;SMS T 10V 47M(5X11)	2	
C1730	11608-103-103	C-ELECTROLYTIC;SMS T 16V 10M(5X11)	1	
C1702,2225,3200,1738,1740	11608-103-333	C-ELECTROLYTIC;SMS T 16V 33M(5X11)	5	
C2223	11608-104-223	C-ELECTROLYTIC;SMS T 25V 22M(5X11)	1	
C1791	11608-106-102	C-ELECTROLYTIC;SMS T 50V 1M(5X11)	1	
C1905L,1905R	11608-106-332	C-ELECTROLYTIC;SMS T 50V 3 3M(5X11)	2	
C1718	11608-106-471	C-ELECTROLYTIC;SMS T 50V 0 47M(5X11)	1	
C2300,C1901L,C1901R	11608-106-472	C-ELECTROLYTIC;SMS T 50V 4.7M(5X11)	3	
C1728	11608-156-689	C-ELECTROLYTIC;SMS T 50V 6.8M(6.3X7)	1	
C1761,1735	11608-206-478	C-ELECTROLYTIC;MP SMS T 50V 0.47M(5X1)	2	
IC0316	12109-401-170	IC-DAC;KDA0316LD/TAPING	1	
IC5990	12119-203-770	IC-DS PROCESSOR;KS5990/KS5990B	1	
IC8309	12119-203-780	IC-SSPROCESSOR;KA8309/KA8309B	1	
IC9201	12119-203-790	IC-RF AMP;KA9201	1	
Q1701,1501	12149-202-050	TRANSISTOR;KSB564A-Y	2	
UQ09	12159-301-780	TR DIGITAL;KSR 1003	1	
Q1791,1792	12159-301-800	TR-DIGITAL;R1007/108M/124XS	2	
D905,903,910,FD02,03,UD11	12169-301-400	DIODE-SWITCH;1N4148M ROHM(SMALL)	6	
D900	12169-403-310	DIODE-ZENER;UZ 5.1B/RD5 1 0.5W	1	
L1901	12429-411-101	COIL-CHOKE;AX 100UH 02(LAL02TB101K)	1	
CW101	13349-512-561	CONNECTOR-WAFER;STICK 5267-02A 2P TYPE	1	
IC9258/6296	A4012-0169	IC-LINEAR;KA9258 SOP CD 4CH-DRIVER	1	
IC9270	A4012-0064	IC-LINEAR;KA9270 DIP CD AUDIO	1	

3.TUNER PCB SECTION

LOCATION	CODE No.	DESCRIPTION & SPECIFICATION	Q'TY	REMARK
R10	11119-101-101	R-CHIP;MCR10,2012S 100-J	1	
IR05,11	11119-101-103	R-CHIP;MCR10,2012S 10K-J	2	
IR52	11119-101-104	R-CHIP;MCR10,2012S 100K-J	1	
IR03,UR9	11119-101-123	R-CHIP;SCR2012J123 100CT	2	
IR08	11119-101-220	R-CHIP;SCR2012J 220 100CT	1	
UR01,IR56	11119-101-222	R-CHIP;MCR 10,2012S 2.2K-J	2	
UR02,20,26,IR04	11119-101-223	R-CHIP;MCR10,2012S 22K-J	4	
IR09,58,59 UR21,22,23,24,25	11119-101-224	R-CHIP;SCR2012 16V 220K-J	8	
FR11	11119-101-331	R-CHIP;MCR10 201	1	
FR9	11119-101-332	R-CHIP;SCR2012S 3.3K-J	1	
UR01,FR8	11119-101-391	R-CHIP;2012 390J	2	
FR10	11119-101-470	R-CHIP;SCR2012J 470 100CT	1	
IR06,07,UR30,31,32	11119-101-473	R-CHIP;MCR 10,2012S 47K-J	5	
FR6	11119-101-479	R-CHIP;SCR2012J 479100CT	1	
IR60,61,62	11119-101-562	R-CHIP;MCR 10 2012S 5.6K-J	3	
R11	11119-101-563	R-CHIP;SCR2012 56K-J	1	
UR27,28,29	11119-101-683	R-CHIP;SCR2012J 683 100CT	3	
IR01	11119-101-822	R-CHIP;SCR2012 822 100CT	1	
IC08	11129-001-331	C-CHIP CERAMIC;C2012 SL,1H 331K	1	
FC03,UC15,22	11129-004-102	C-CHIP CERAMIC;C2012 X7R 1H 102K	3	
IC09,80	11129-004-103	C-CHIP CERAMIC;SMC2012B 103K 500P	2	
IC04,10,24,UC23,24	11129-004-223	C-CHIP CERAMIC;SMC2012B 223K 500P	5	
FC01,02,04,5,C12 IC12,56,59,54	11129-004-473	C-CHIP,CERAMIC;C2012B 473K	9	
IC21	11129-008-470	C-CHIP,CERAMIC;C2012CH47P	1	
IC81,82	11129-009-100	C-CHIP CERAMIC; SMC2012X 100J 500P	2	
UC03,04,20,21,25 IC20,60,FC05	11129-009-101	C-CHIP CERAMIC; SMC2012C 101-K	8	
UC08	11407-057-120	C-CERAMIC;CC45T CH50 12-J	1	
UC07	11407-057-180	C-CERAMIC;CC45T CH 50V 18-J	1	
UC05,06	11407-057-200	C-CERAMIC;CC45T CH 50V 20-J	2	
UC09	11407-057-270	C-CERAMIC;CC45T CH 50V 27-J	1	
UC10	11407-057-330	C-CERAMIC;CC45T CH 50V 33-J	1	
IC16,17	11505-714-123	C-POLYESTER;CQ921T M 50V 0.012M-K	2	
UC02	11505-714-223	C-POLYESTER;CQ921T M 50V 0.022M-K	1	
IC05,13	11505-714-683	C-POLYESTER;CQ921T M 50V 0.068M-K	2	
IC55,58	11509-452-120	C-POLYSTYRENE;CQ09 S 50V 470-J	2	
RC06	11608-102-104	C-ELECTROLYTIC;SMS T 10V 100M(5X11)	1	
IC06	11608-103-103	C-ELECTROLYTIC;SMS T 16V 10M(5X11)	1	
UC20	11608-103-104	C-ELECTROLYTIC;SMS T 16V 100M(6.3X11)	1	
IC02,UC13	11608-103-221	C-ELECTROLYTIC;SMS T 16V 220M(8X11.5)	2	
UC14	11608-104-103	C-ELECTROLYTIC;SMS T 25V 10M(5X11)	1	
IC18,19,11,14	11608-106-102	C-ELECTROLYTIC;SMS T 50V 1M(5X11)	4	
UC15	11608-106-111	C-ELECTROLYTIC;SMS T 50V 0.1M(5X11)	1	

LOCATION	CODE No.	DESCRIPTION & SPECIFICATION	Q'TY	REMARK
UC01	11608-106-222	C-ELECTROLYTIC;SMS T 50V 2.2M(5X11)	1	
ICT01,51,02,52	11829-512-030	C-TRIMMER;TZ03R 20PF	4	
IIC01	12119-101-370	IC IF-MPX;TA8132N	1	
UIC01	12119-203-220	IC-FREQ SYNTHESIZER;LM7000	1	
UIC03	12119-601-160	IC-REGULATOR;TA78L005/MC 78L05AC	1	
IQ01,10,08,09	12149-101-520	TRANSISTOR;KSA733 Y,TAPE	4	
UQ09	12149-101-560	TRANSISTOR;KSA708 Y,TAPE	1	
UQ04,05	12149-202-050	TRANSISTOR;KSB564A Y	2	
UQ01,02,FQ01	12149-301-820	TRANSISTOR;KSC1222-L,TAPE	3	
IQ51,52,53,54 UQ03,06,08,IQ07	12149-301-900	TRANSISTOR;KSC 945-Y,TAPE	8	
IQ03	12159-301-330	TR-CIGITAL;KSR2003,TAPE	1	
UQ07	12159-301-780	TR DIGITAL;KSR 1003	1	
IQ04	12159-301-790	TR DIGIRAL;KSR1009	1	
IQ02,06	12159-301-800	TR DIGITAL;R1007/108M/124XS	2	
IQ05	12159-301-810	TR DIGITAL;KSR2007	1	
FD01,ID01,03,04,D904 UD01,02,03,04,05,06,07 UD08,09,10,12,13,14	12169-301-290	DIODE-SW;1SS53/1N4148,CT : 60PF	18	
ID01	12169-501-005	DIODE;KV 1236	1	
REMOCON EYE	12199-101-240	REMOCON-EYE;MM 001M(16M/M)	1	
POWER LED	12309-115-330	LED;KLR124	1	
UL3,4,5,6,7	12429-411-101	COIL-CHOKE;AX 100UH-02(LAL02TB101K)	5	
UL2,10,11,12,8 UL13,14,15,16,17 UL18,19,20,21	12429-508-100	COIL-CHOKE;AX 10UH-04	14	
ANT	12514-274-517	COIL-ANT ASSY;240UH/25MH AR 8X10025M	1	
ITZ01	12619-030-005	COIL CAN;AC 450KHZ YEL	1	
IOL52	12619-047-202	COIL CAN;AD 510UH 220KHZ BRN	1	
IOL02	12619-047-203	COIL CAN;AD 110UH 796KHZ RED	1	
CW07	13052-902-080	CONNECTOR-WIRE/B,S;5264-02/51088-02 1	1	
CW08	13078-475-125	CONNECTOR-WIRE/B,S;5264-05/5395-05 10	1	
CW06	13078-499-220	CONNECTOR-WIRE/B,S;5264-09/5395-09 25	1	
W04-1,W06-1	13349-148-040	CONNECTOR-WAFER;5513-04APB	2	
W03,05	13349-148-110	CONNECTOR HOUSING;5513-11APB WHT	2	
W04,06	13349-341-040	CONNECTOR HOUSING;5512-04A 4PIN	2	
W03-1,W05-1	13349-341-110	CONNECTOR WAFER;5512-11A	2	
CW09,01	13349-512-561	CONNECTOR-WAFER;STICK 5267-02A 2P TYPE	2	
DN,SLEEP,AUTO,DSP,ST,ME	13559-102-010	SWITCT-TACT;JTP1236A 160G	7	
FM PACK1	14519-815-010	TUNER FM;CEA9 735H	1	
FCF01	14529-301-750	FIETER CERAMIC;SFE10 7MS3G-A	1	
ICF01	14529-304-610	FILTER CERAMIC;AHCM2-450BL	1	
ICF02	14529-601-040	CERAMIC-FILTER;CDA 10 7MG18-A	1	
UX03	14539-501-140	CRYSTAL;HC-18.Y 7.2MHZ	1	
UX2	14539-502-350	X-TAL;32 768KHZ	1	

LOCATION	CODE No.	DESCRIPTION & SPECIFICATION	Q'TY	REMARK
UX1	A1280-0072	CRYSTAL;4 194304MHZ HC 49/U-A 0.005	1	
POWER/BAND,TIMER	A3018-0026	SW-TACT,V;R3100115J 22 6X8MM 2KEY	2	
PLAY/PAUSE,E10,STOP,INTRO	A3018-0028	SW-TACK,H;SKHV10914A 6X9.5MM 1KEY	4	
LCD	A4155-0026	LCD;LE 0678AP DTS+CDP Y TYPE BEFLECTI	1	
UIC02	B4002-0258	IC-CPU;UPD75P316-346-3B9 AUDIO QFP	1	

4.REMOTE CONTROL SECTION

LOCATION	CODE No.	DESCRIPTION & SPECIFICATION	Q'TY	REMARK
TQ1	12149-401-150	TRANSISTOR;KSD 471-Y,TAPE	1	
TX1	14539-504-030	CERAMIC-RESONATOR;SCR455EBL	1	
TIC1	B4012-0014	IC-LINEAR;LC746M 8117 SOP	1	

* ! Indicates parts for circuit safe guarding purposes.
Therefore, when replacing, be sure to use specified parts only.

■ ABBREVIATION LIST

AC : Alternating Current
ADJ. : Adjustment
AFC : Automatic Frequency Control
ALC : Automatic Level Control
AM : Amplitude Modulation
AMP : Amplifier
ANT : Antenna
ASSY : Assembly

B : Base
BH : Bokd Head
BLK : BLacK
BLU : Blue
BPF : Band Pass Filter
BRN : BrowN
BRKT : Bracket

C : Collector, Capacitor
CD : Compact Disc
CF : Ceramic Filter
Ch : Channel
cm : centimeter
CIRC : Cross Interleave Reed solomon Code
CLV : Constant Linear Velocity
COL : Colon
COM : Common
CON : Connector

D : Depth
D/A : Digital to Analog
DAC : Digital to Analog Conveter
dB : deciBel
DC : Direct Current
DET : Detector
DEV : Deviation
DIV : Division
DSP : Digital Signal Processor

E : Emitter
E.F : Eight to Fourteen
E-HEAD : Erase Head
EQ : Equalizer

F.Bias : Focus Bias
FE : Focus Error
FF : Fast Forward
F.FWD : Fast Forward
Fig : Figure
FM : Frequency Modulation
FOK : Focus OK
FREQ. : Frequency

GND : Ground

H : Height, High
Hz : Hertz

IC : Integrated Circuit
IF : Intermediate Fequency
IFT : Intermediate Frequency Transformer
I/O : Input/Output
INTRO : Introduction

KHz : Killo hertz
Kg : Killogram

L : left, Low
LCD : Liquid Crystal Display
LED : Light Emitting Diode
LPF : Low Pass Filter
LSI : Large Scale Integration
LW : Long Wave

MHz : Mega Hertz
MICOM : MICro Computer
MIN : Minute
MIX : Mixer
mm : millimeter
MOD : Modulation
MPX : Multiplex
mV : milliVoltage
MW : Medium Wave
mW : milli Watt

N : Negative
NFB : Negative FeedBack
nm : nano meter

ORG : Orange
OSC : Oscillator

P : Point, positive
PB : Playback
PCB : Printed Circuit Board
PF : Pico Farad
P/T : Power Transformer
P/U : Pick Up

Q'TY : QuantiTY

R : Right Resistor
RAM : Random Access Memory
RDS : Radio Data system
REC : ReCord
REG : ReGulator
REW : ReWind
RF : Radio Frequency
RH : Round Head
ROM : Read Only Memory
R/P : Record/Play
rpm : revolutions per minute

sec : second
SEL : Selector
SPK : Speaker
SSG : Standard Signal Generator
SSP : Servo Signal Processor
ST : Stereo
SVR : Semi Variable Resistor
SW : SWitch,short Wave
SYNC : Synchronous

TE : Ttacking Error
TP : Test Point
TR : TRansistor
TRANS : Transformer

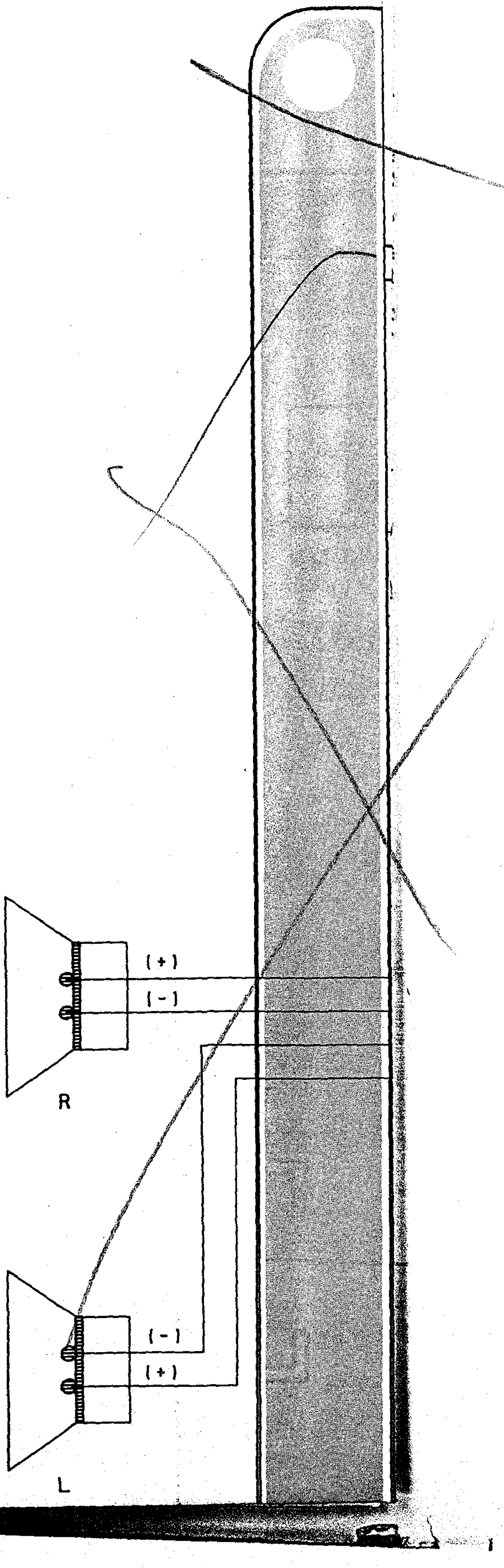
V : Volt
VCO : Voltage Controlled Oscillator
Vpp : Voltage peak to peak
VR : Variable Resistor
VREF : Reference Voltage
V/SEL : Voltage Selector
VTVM : Vaccum Tube Volt Meter

W : Watt, Weight
WHT : White

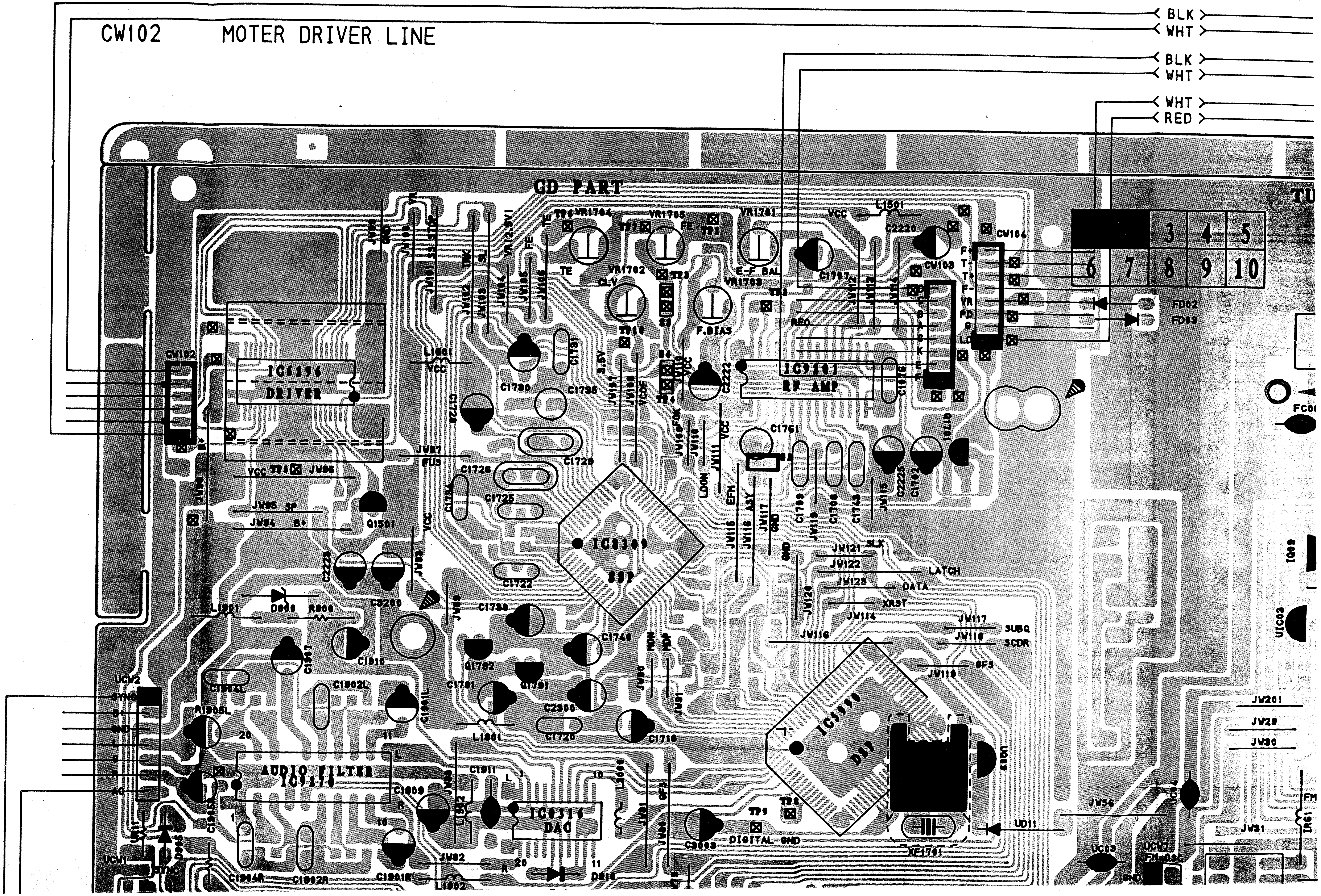
X-TAL : crystal

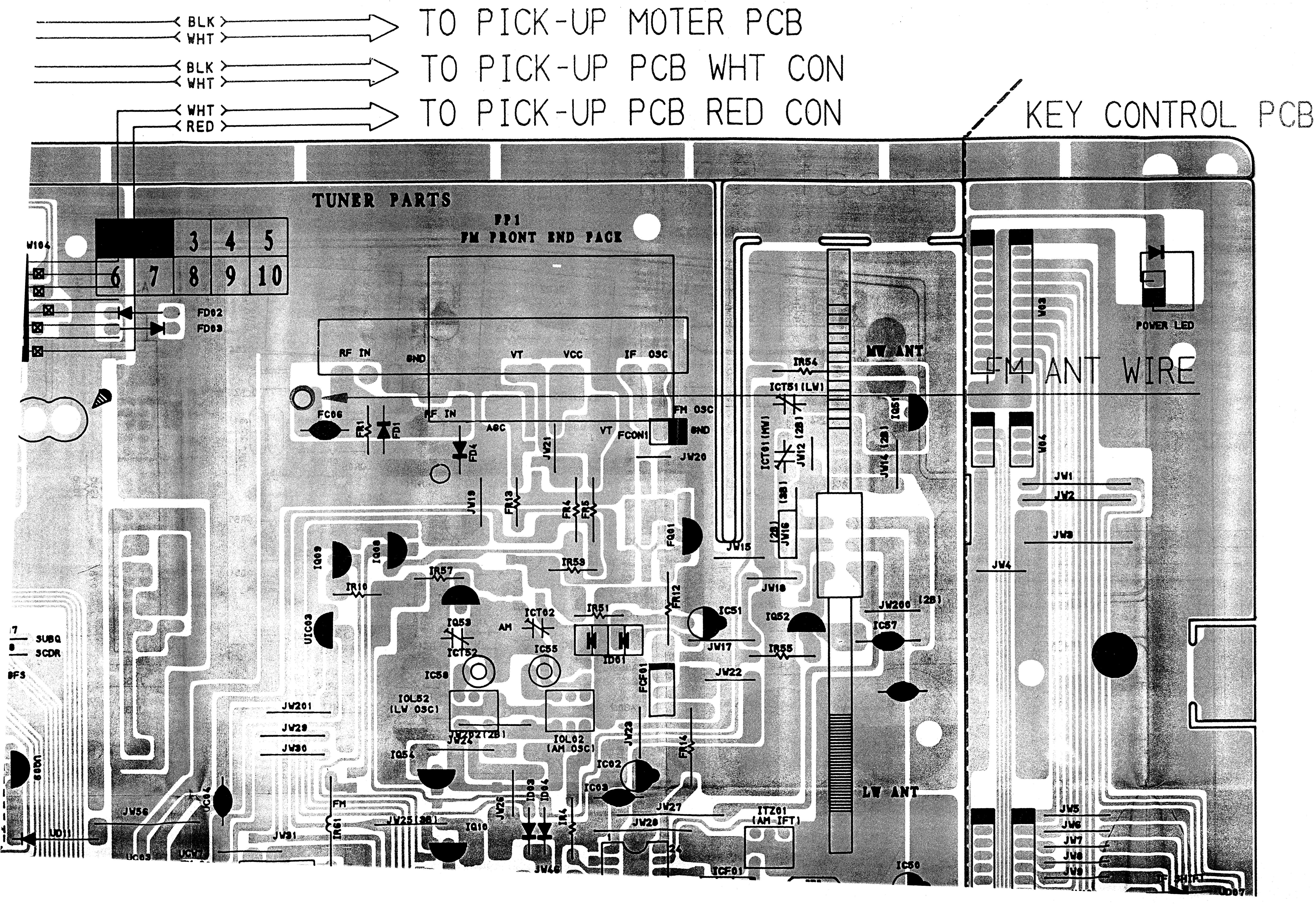
■ WIRING DIAG

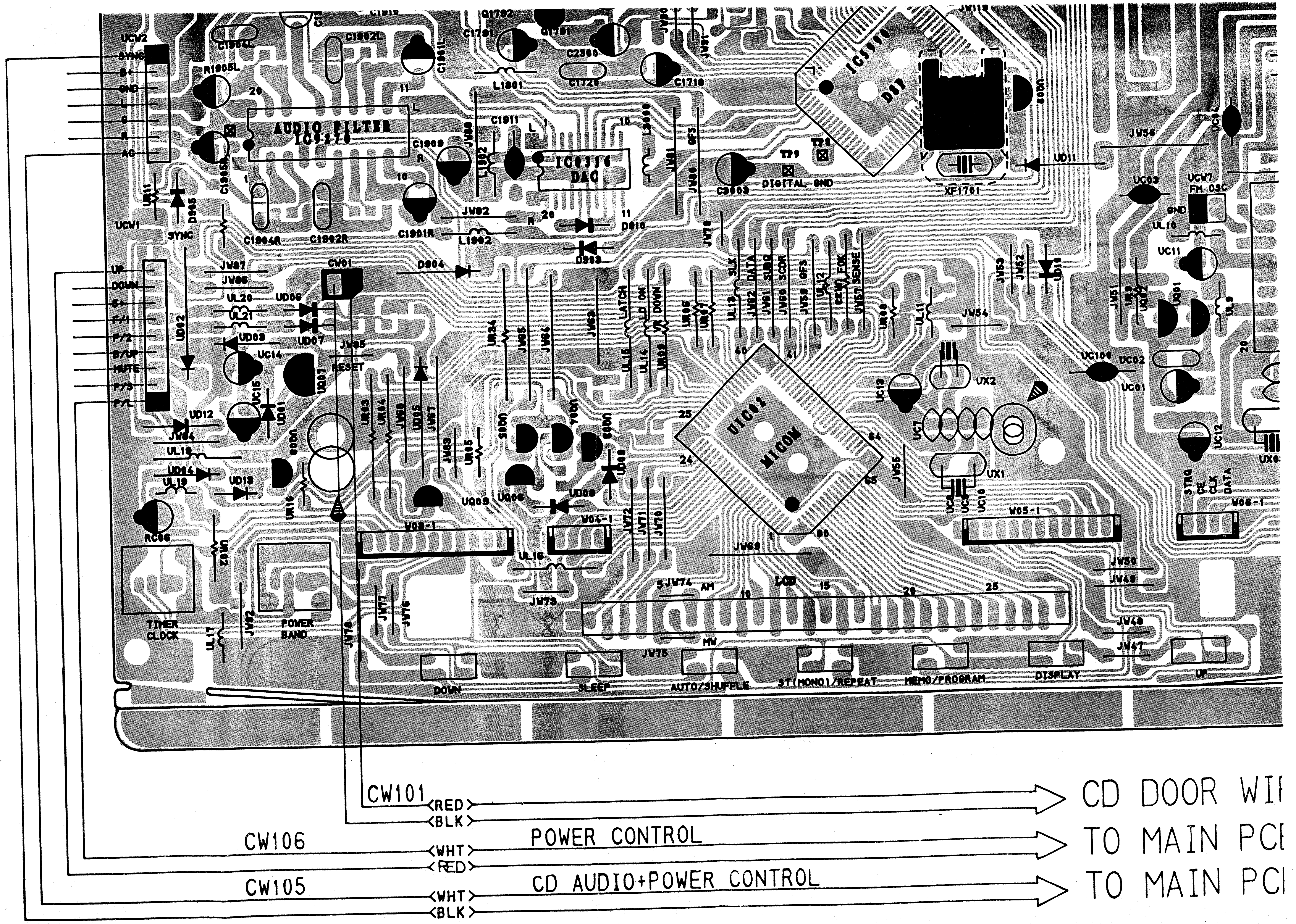
1. MAIN SECTION

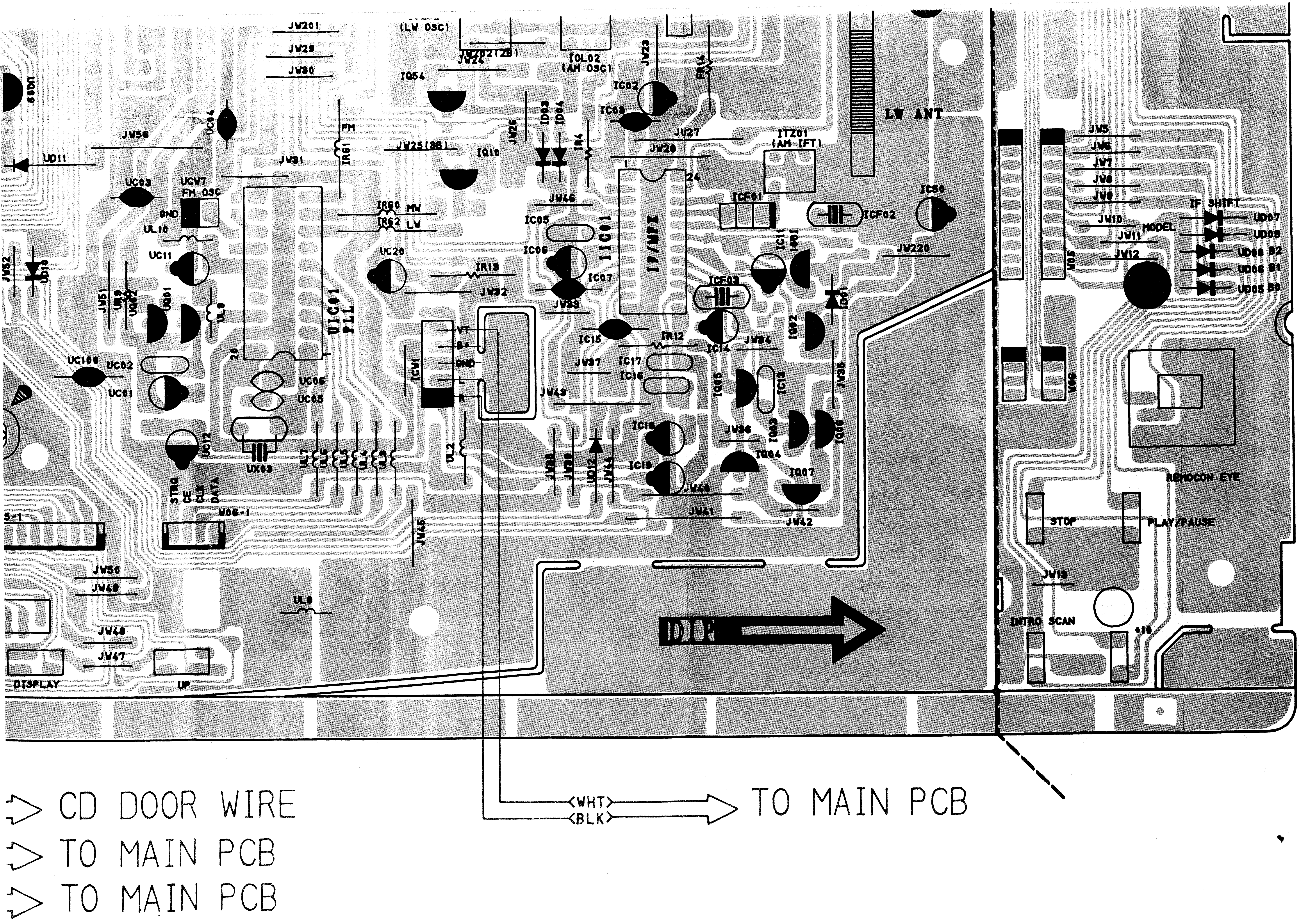


TUNER/CD SECTION


CW102
MOTER DRIVER LINE
BLK
WHT
BLK
WHT
WHT
RED
CD PART
TU
3
4
5
6
7
8
9
10
IC6296
DRIVER
IC9201
RF AMP
IC8309
SSP
IC9990
DSP
AUDIO FILTER
IC9270
IC0316
DAC
CW104
CW103
F+
T-
T+
F-
VR
PD
G
LD
FD02
FD03
VR1704
VR1705
VR1701
VR1702
VR1703
TE
FE
CLV
E-F BAL
F.BIAS
VCC
L1501
C2220
C1707
REO
C2222
C1976
C1761
C1708
C1706
C1743
C2225
C1702
C1710
C1730
C1735
C1731
C1728
C1729
C1726
C1725
C1724
C1722
C1738
C1740
C1791
C2300
C1720
C1718
C2223
C3200
C1810
C1807
C1904L
C1902L
C1901L
C1911
C1909
C1904R
C1902R
C1901R
C3603
Q1501
Q1792
Q1791
L1601
L1801
L1901
L1902
L3602
L3600
D900
R900
D906
D910
R1905L
C1905R
XF1701
UD11
UIC03
FC0
JW97
JW96
JW95
JW94
JW93
JW89
JW98
JW99
JW100
JW101
JW102
JW103
JW104
JW105
JW106
JW107
JW108
JW109
JW110
JW111
JW112
JW113
JW114
JW115
JW116
JW117
JW118
JW119
JW120
JW121
JW122
JW123
JW201
JW29
JW30
JW31
JW56
JW60
JW61
JW62
JW90
JW91
FUS
VCC
SP
B+
3.5V
VCOF
FOK
LDON
EFM
ASY
GND
SLK
LATCH
DATA
XRST
SUBQ
SCDR
SFS
MDM
MDP
DFS
TRK
SL
VR(2.5V)
S3
STOP
TP1
TP2
TP3
TP4
TP6
TP8
TP9
TP10
T20
T23
S3
S4
DIGITAL GND
UCW2
SYNC
B+
GND
L
G
R
AC
UCW1
UC03
UCW7
FM-OSC
UC04
IRG1
FM
20
11
10
1
L
R


BLK
WHT
TO PICK-UP MOTER PCB
BLK
WHT
TO PICK-UP PCB WHT CON
WHT
RED
TO PICK-UP PCB RED CON
KEY CONTROL PCB
TUNER PARTS
FP1
FM FRONT END PACK
3
4
5
6
7
8
9
10
W104
FD02
FD03
RF IN
GND
VT
VCC
IF OSC
FM OSC
GND
FCON1
FC06
FR1
FD1
RF IN
AGC
VT
FD4
JW20
JW21
JW19
FR13
FR4
FR5
FQ01
IQ09
IQ08
IR57
IR10
IR53
FR12
IR51
IC51
IQ52
IC57
JW17
IR55
JW22
IQ53
AM
ICT02
ICT52
IC55
ID01
IC58
UIC03
FCF01
IOL52
(LW OSC)
IOL02
(AM OSC)
JW202(2B)
JW24
JW23
FR14
IC02
IC03
IQ54
JW26
ID03
ID04
IR4
JW25(3B)
IQ10
JW27
JW28
IT201
(AM IFT)
ICF01
IC50
JW201
JW29
JW30
JW31
JW56
UC04
UD11
UC03
UC07
FM
IR61
SUBQ
SCDR
BFS
I7
8
IR54
ICT51(LW)
ICT01(MW)
JW12(2B)
JW14(2B)
(3B)
(2B)
JW16
JW15
JW18
JW200(2B)
MW ANT
IQ51
LW ANT
FM ANT WIRE
POWER LED
W03
W04
JW1
JW2
JW3
JW4
JW5
JW6
JW7
JW8
JW9
UD07
JW46


UCW2
SYNC
B+
GND
L
G
R
AG
UCW1
UP
DOWN
5+
F/1
F/2
B/UP
MUTE
P/S
P/L
AUDIO FILTER
IC9270
IC0316
DAC
IC5990
DSP
XF1701
DIGITAL GND
UCW7
FM OSC
UIC02
MICOM
CW01
RESET
TIMER
CLOCK
POWER
BAND
W03-1
W04-1
W05-1
W06-1
LCD
AM
MW
DOWN
SLEEP
AUTO/SHUFFLE
ST(MONO)/REPEAT
MEMO/PROGRAM
DISPLAY
UP
LATCH
LD ON
VR DOWN
SLK
DATA
SUBQ
SCOR
GFS
FOK
SENSE
STRQ
CE
CLK
DATA
CW101
RED
BLK
CD DOOR WI
CW106
WHT
RED
POWER CONTROL
TO MAIN PC
CW105
WHT
BLK
CD AUDIO+POWER CONTROL
TO MAIN PC


JW201
(LW OSC)
JW29
JW30
JW202(2B)
JW24
IOL02
(AM OSC)
IQ54
JW23
FR14
IC02
IC03
LW ANT
JW56
UC04
FM
IR61
JW25(3B)
IQ10
JW26
ID03
ID04
IR4
JW27
JW28
ITZ01
(AM IFT)
UD11
JW31
UC03
UCW7
FM OSC
GND
UL10
UC11
IR60 MW
IR62 LW
JW46
IC05
IC06
IIC01
IF/MPX
ICF01
ICF02
IC50
JW5
JW6
JW7
JW8
JW9
JW10
JW11
JW12
MODEL
IF SHIFT
UD07
UD09
UD08 B2
UD06 B1
UD05 B0
W05
W06
JW52
UD10
JW51
UR9
UQ02
UQ01
UL9
UIC01 PLL
20
UC20
IR13
JW32
IC07
JW33
IC11
IQ01
JW220
ICF03
ID01
VT
B+
GND
L
R
ICV1
IC15
IR12
IC14
JW34
IQ02
JW37
IC17
IC16
JW43
IQ05
IC13
JW35
UC100
UC02
UC01
UC06
UC05
IC18
JW36
IQ03
IQ06
UC12
UX03
UL7
UL6
UL5
UL4
UL3
UL2
JW38
JW39
UD12
JW44
IC19
IQ04
IQ07
JW40
JW41
JW42
REMOCON EYE
STRQ
CE
CLK
DATA
W06-1
5-1
JW45
STOP
PLAY/PAUSE
JW50
JW49
UL8
JW13
DIP
JW48
JW47
INTRO SCAN
+10
DISPLAY
UP

<WHT>
<BLK>

CD DOOR WIRE

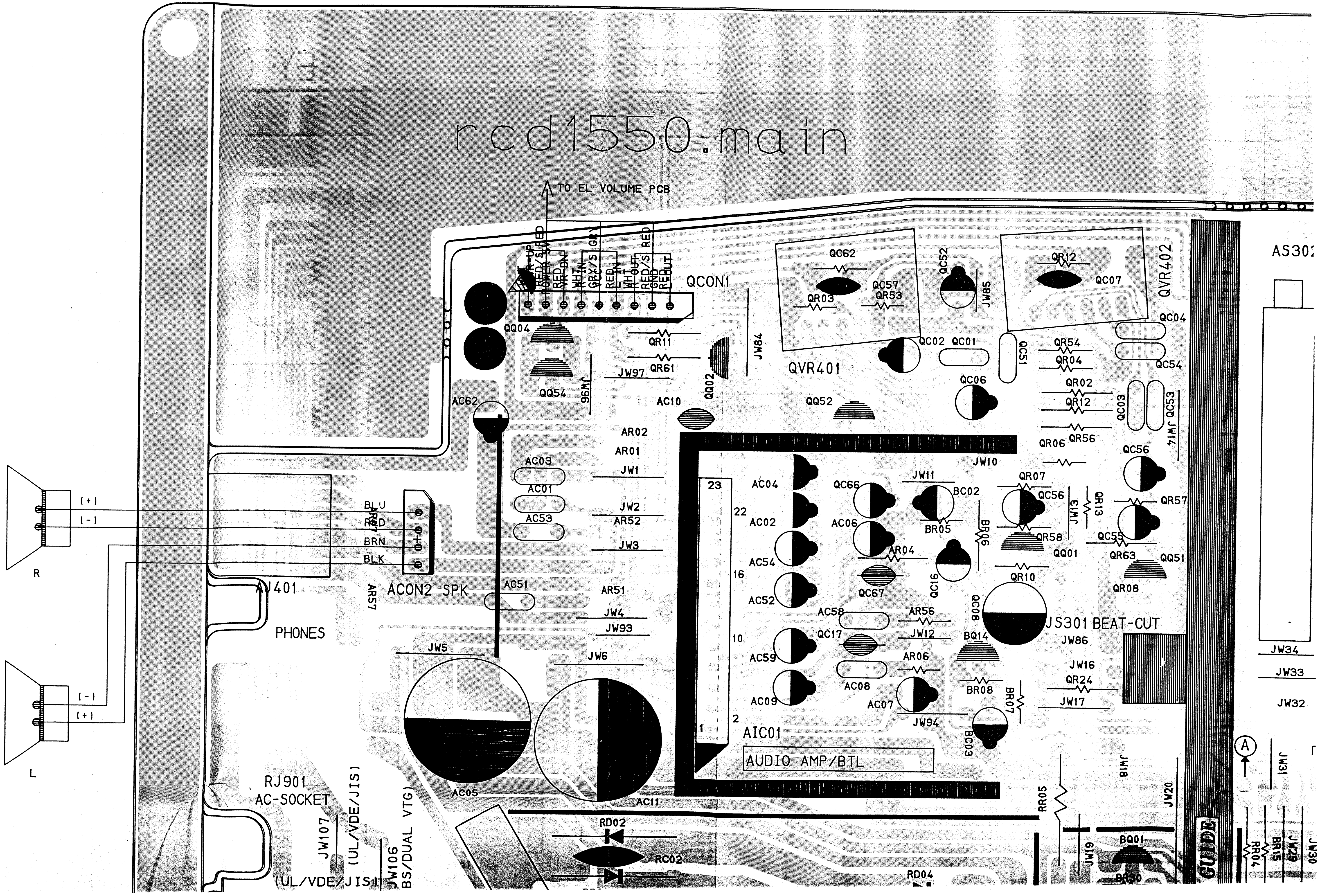
TO MAIN PCB

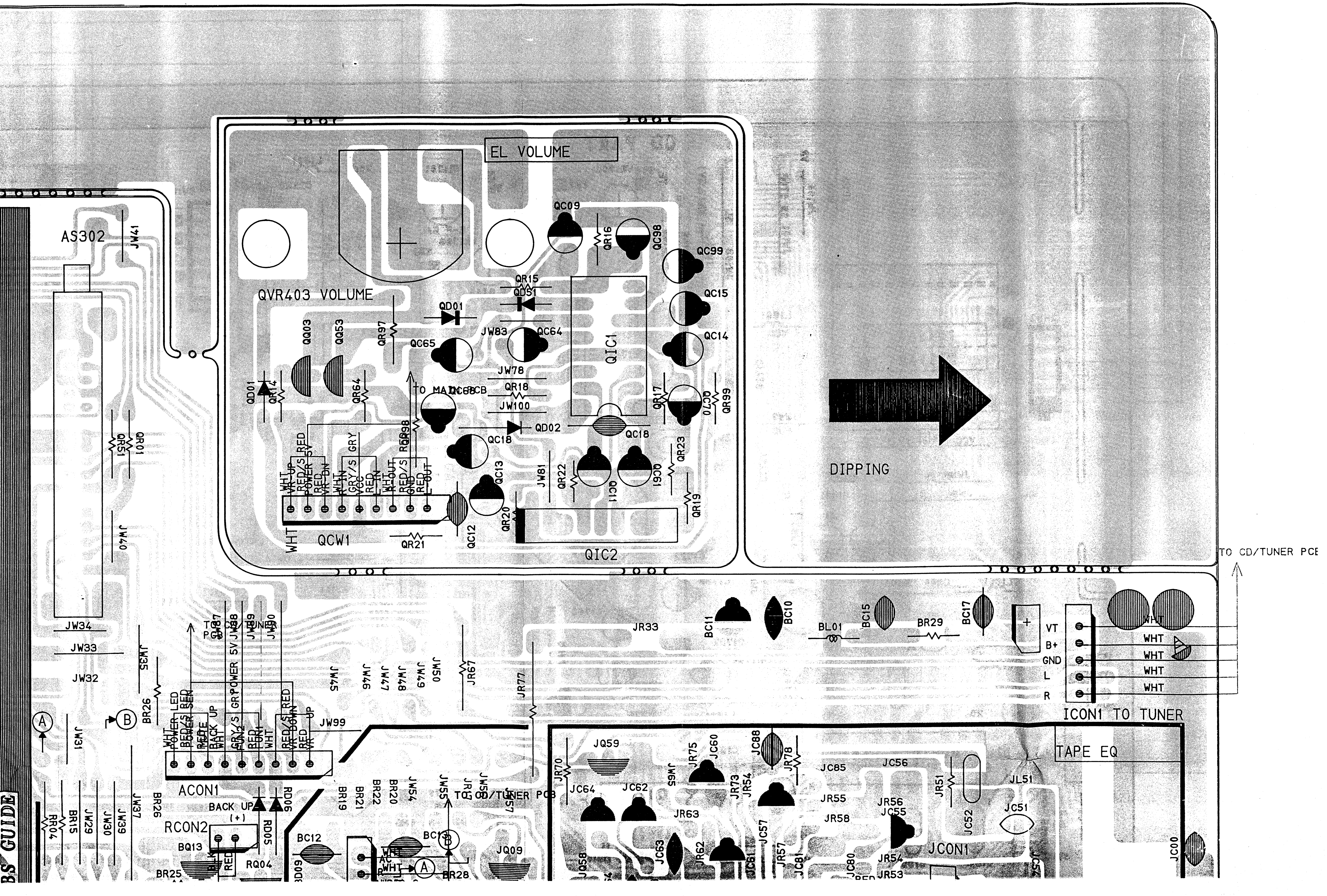
TO MAIN PCB

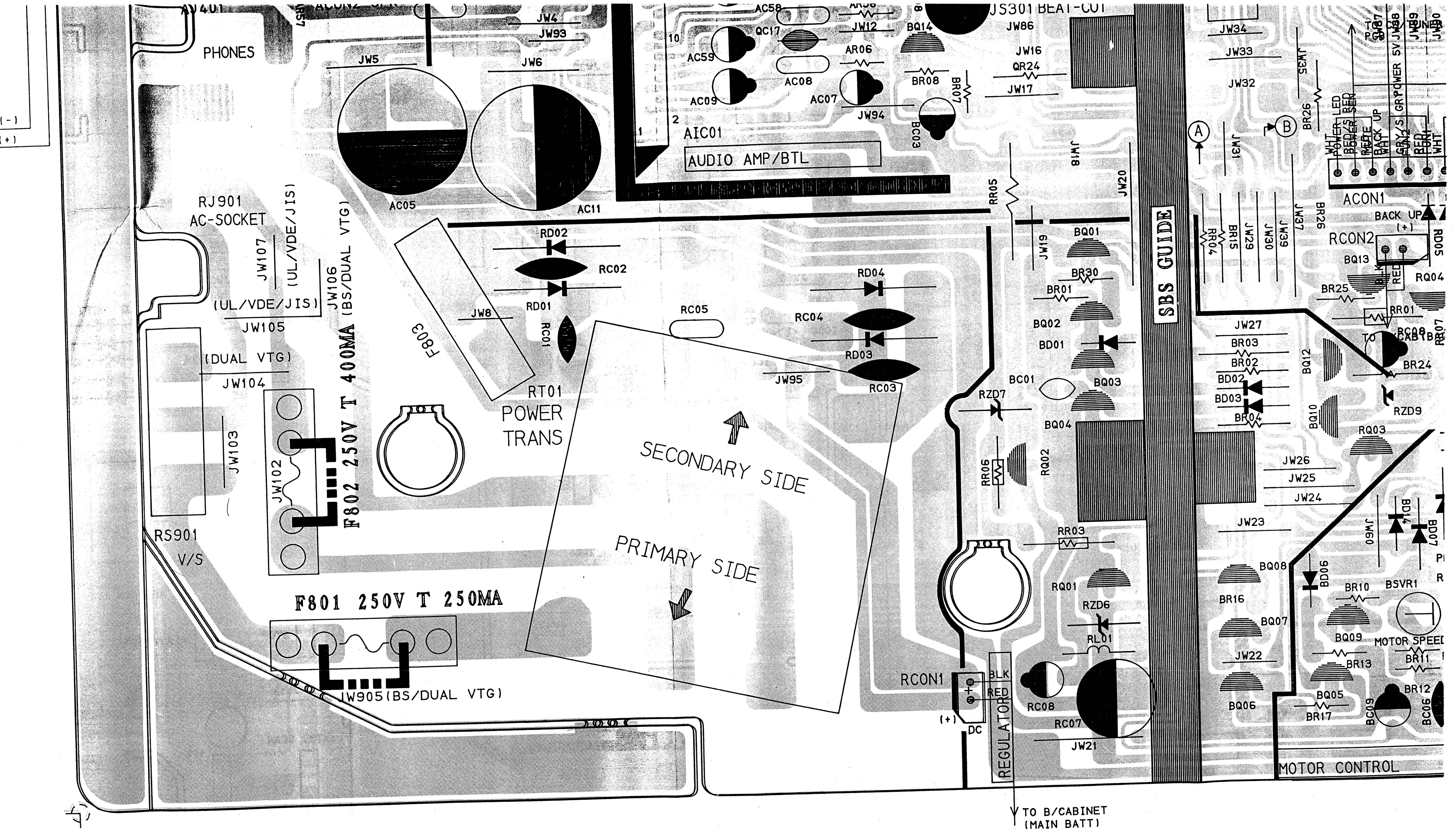
TO MAIN PCB

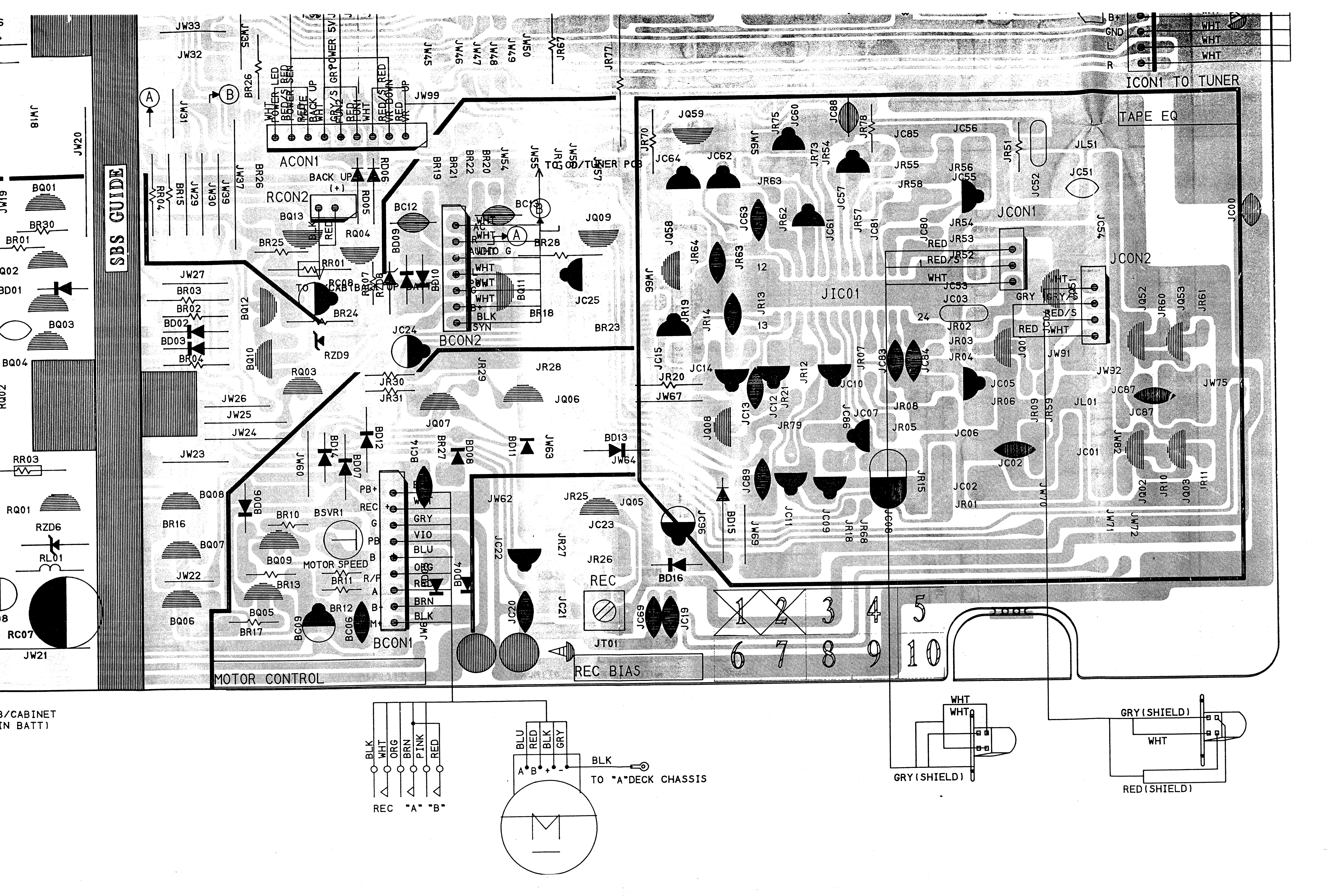
■ WIRING DIAGRAMS

1. MAIN SECTION


rcd1550.main
TO EL VOLUME PCB
P-UP
RED/S
POWER SW
RED
VR DN
WHI
IN
GRX/S
GRY
RED
IN
WHI
OUT
RED/S
GND
RED
OUT
QCON1
QC62
QR03
QC57
QR53
QC52
JW85
QR12
QC07
QVR402
AS302
QC04
QQ04
QR11
QR61
JW97
QQ54
JW96
QQ02
JW84
QVR401
QC02
QC01
QC51
QR54
QR04
QC54
QC06
QR02
QR12
QC03
QC53
AC62
AC10
QQ52
AR02
AR01
QR06
QR56
JW14
QC56
JW10
AC03
JW1
AC01
JW2
AR52
AC53
JW3
AC04
QC66
JW11
BC02
QR07
QC56
JW13
QR13
QR57
AC02
AC06
BR05
BR06
QR58
QC55
QR63
QQ51
QQ01
AC54
AR04
QC16
QR10
QR08
AC52
QC67
QC08
AC58
AR56
JS301 BEAT-CUT
QC17
JW12
BQ14
JW86
AC59
AR06
JW16
AC08
BR08
BR07
QR24
AC09
AC07
JW17
JW94
BC03
JW34
JW33
JW32
23
22
16
10
2
1
AIC01
AUDIO AMP/BTL
(+)
(-)
R
(-)
(+)
L
BLU
RED
BRN
BLK
AJ401
AR57
ACON2 SPK
AC51
AR51
JW4
JW93
PHONES
JW5
JW6
AC05
AC11
RJ901
AC-SOCKET
JW107
(UL/VDE/JIS)
(UL/VDE/JIS)
JW106
BS/DUAL VTG
RD02
RC02
RD04
RR05
JW18
JW20
JW19
BQ01
BR30
GUIDE
A
JW31
RR04
BR15
JW29
JW30

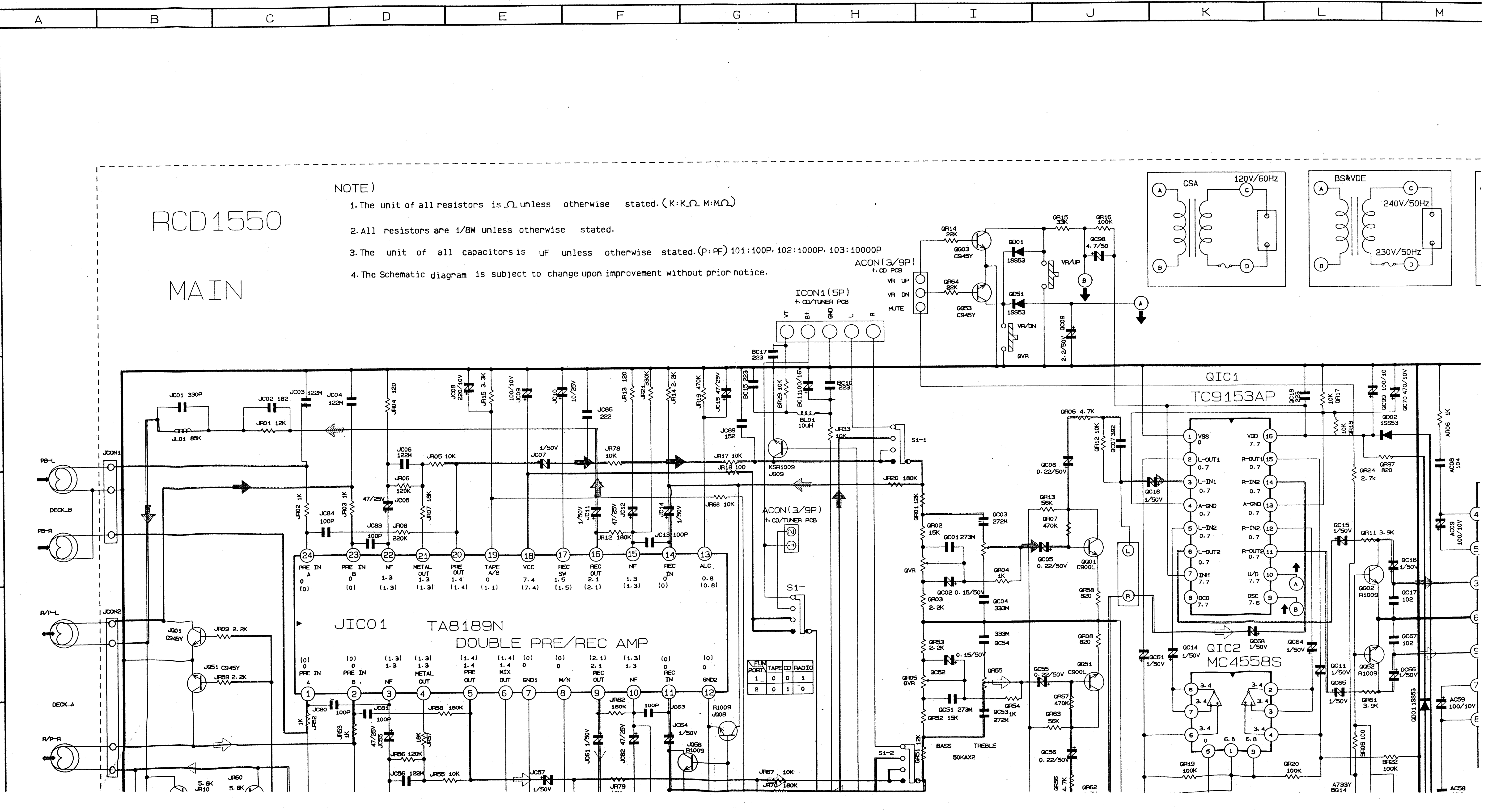

EL VOLUME
QVR403 VOLUME
AS302
QC09
QR16
QC98
QC99
QC15
QC14
QR15
QD51
QD01
JW83
QC64
QIC1
QQ03
QQ53
QR97
QC65
JW78
QR18
JW100
QR64
QR14
TO MAIN PCB
QC68
QR98
QD02
QC18
QC13
QC12
QR17
QC70
QR99
QR23
QC01
QR22
QC11
JW81
QR19
QR20
QR21
QCW1
QIC2
WHT
VR UP
RED/S
POWER 5V
RED
VR DN
GRY
R IN
GRY/S
VCC
L IN
R OUT
GND
L OUT
DIPPING
TO CD/TUNER PCB
JW41
QR51
QR01
JW40
JW34
JW33
JW32
JW35
BR26
TO PCB
TO CD/TUNER
JW37
JW38
JW39
JW90
POWER LED
POWER SEN
MUTE
BACK UP
POWER 5V
FUN1
FUN2
VR UP
VR DOWN
JW45
JW46
JW47
JW48
JW49
JW50
JR67
JR77
JR33
JW99
ACON1
BC11
BC10
BL01
BC15
BR29
BC17
VT
B+
GND
L
R
ICON1 TO TUNER
TAPE EQ
A
B
JW31
RR04
BR15
JW29
JW30
JW39
JW37
BR26
BACK UP
(+)
RD06
RD05
RCON2
BQ13
RQ04
BLK
RED
BR25
BC12
BR19
BR21
BR22
BR20
JW54
JW55
TO CD/TUNER PCB
BC13
BR28
JQ09
AC
JQ59
JR70
JC64
JC62
JR75
JC60
JR73
JR54
JC88
JR78
JC85
JC56
JR51
JL51
JR63
JR55
JR56
JC55
JR58
JC52
JC51
JC63
JR62
JC57
JC61
JR57
JC81
JC80
JR53
JR54
JCON1
JC00
JQ58
BS GUIDE


PHONES
JW4
JW93
JW5
JW6
AC58
QC17
JW12
AR06
BQ14
JS301 BEAT-CUT
JW86
JW16
QR24
JW17
AC59
AC08
AC09
AC07
BR08
BR07
JW94
BC03
AIC01
AUDIO AMP/BTL
AC05
AC11
JW34
JW33
JW32
JW35
BR26
POWER LED
RED/S
WHT
RED
BACK UP
GRY/S
POWER 5V
RED
TUNER
WHT
A
B
JW31
ACON1
BACK UP
(+)
RD05
RCON2
BQ13
RED
RQ04
BR25
RR01
RC08
RR07
BR24
RZD9
RQ03
RJ901
AC-SOCKET
JW107
(UL/VDE/JIS)
JW106
(BS/DUAL VTG)
(UL/VDE/JIS)
JW105
(DUAL VTG)
JW104
JW103
JW102
F802 250V T 400MA
F803
JW8
RD02
RC02
RD01
RC01
RT01
POWER
TRANS
RC05
RD04
RC04
RD03
JW95
RC03
SECONDARY SIDE
PRIMARY SIDE
RR05
JW18
JW20
JW19
BQ01
BR30
BR01
BQ02
BD01
BC01
BQ03
BQ04
RZD7
RR06
RQ02
SBS GUIDE
RR04
BR15
JW29
JW30
JW39
JW37
BR26
JW27
BR03
BR02
BD02
BD03
BR04
BQ12
BQ10
JW26
JW25
JW24
JW23
JW60
BD14
BD07
RS901
V/S
F801 250V T 250MA
JW905 (BS/DUAL VTG)
RR03
RQ01
RZD6
RL01
RCON1
BLK
RED
(+)
DC
REGULATOR
RC08
RC07
JW21
BQ08
BD06
BR10
BSVR1
BR16
BQ07
BQ09
MOTOR SPEED
BR11
JW22
BR13
BR12
BQ05
BQ06
BR17
BC09
BC06
MOTOR CONTROL
TO B/CABINET
(MAIN BATT)


SBS GUIDE
ACON1
BACK UP (+)
RCON2
BCON2
BCON1
JCON1
JCON2
JIC01
ICON1 TO TUNER
TAPE EQ
TO CD/TUNER PCB
MOTOR SPEED
BSVR1
MOTOR CONTROL
REC BIAS
REC
JT01
B+
GND
L
R
WHT
POWER LED
BACK UP
GRY/S
GRY POWER 5V
RED
RED/S
BLK
SYN
PB+
REC
G
PB
B
R/F
A
B-
M+
GRY
VIO
BLU
ORG
BRN
BLK
TO CABINET BACK UP
BLK
WHT
ORG
BRN
PINK
RED
REC "A" "B"
BLU
RED
BLK
GRY
A B + -
BLK
TO "A"DECK CHASSIS
M
WHT
GRY(SHIELD)
RED(SHIELD)
B/CABINET
IN BATT)
1
2
3
4
5
6
7
8
9
10

SCHEMATIC DIAGRAMS

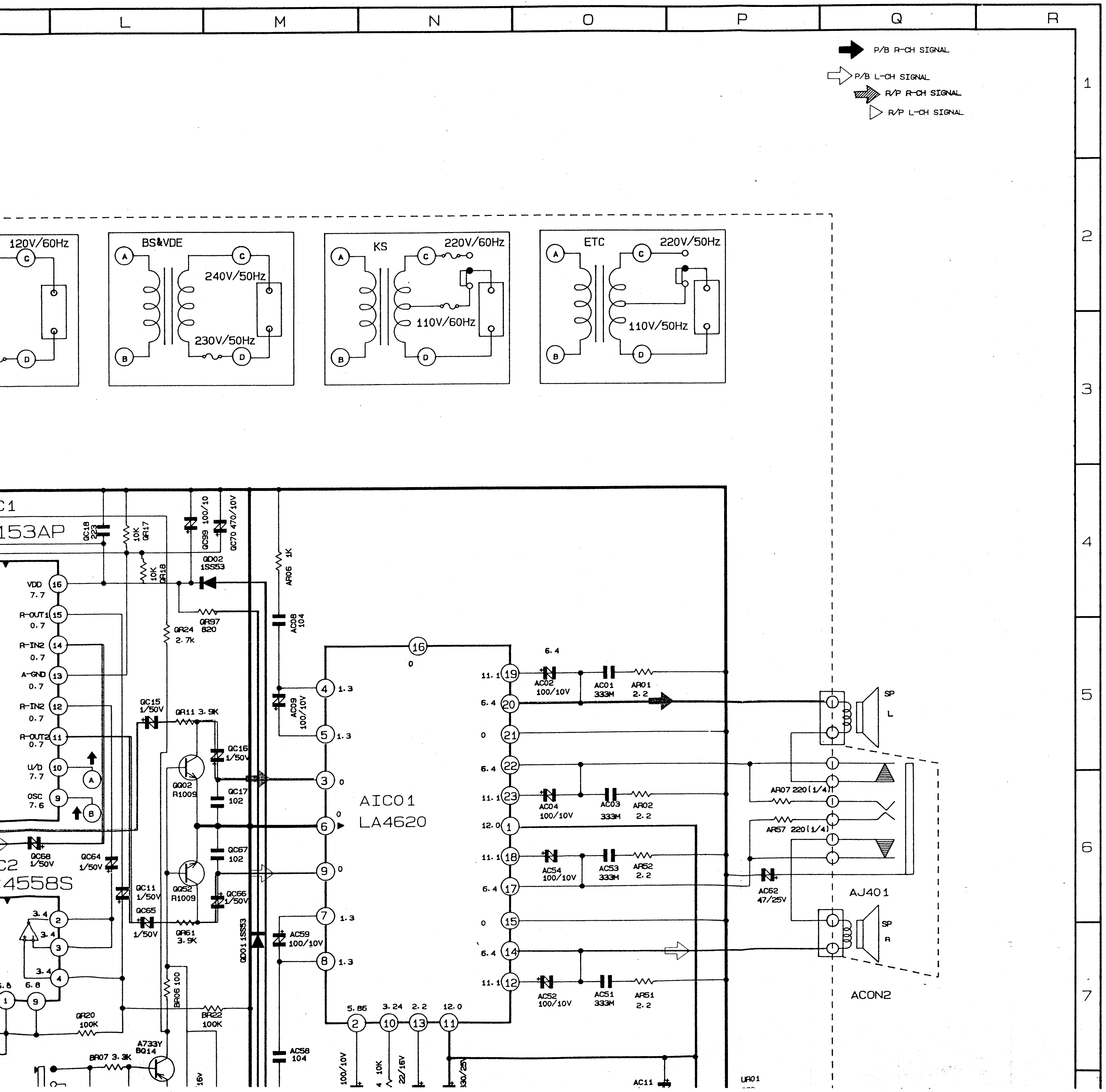
1. MAIN SECTION


A
B
C
D
E
F
G
H
I
J
K
L
M
RCD1550
MAIN
CSA
120V/60Hz
BS&VDE
240V/50Hz
230V/50Hz
ACON(3/9P)
+. CD PCB
VR UP
VR DN
MUTE
ICON1(5P)
+. CD/TUNER PCB
VT
B+
GND
L
R
QR14 22K
QQ03 C945Y
QR64 22K
QQ53 C945Y
QD01 1SS53
QD51 1SS53
QR15 33K
QR16 100K
QC98 4.7/50
VR/UP
VR/DN
QVR
QC09 2.2/50V
QIC1
TC9153AP
1 VSS 0
2 L-OUT1 0.7
3 L-IN1 0.7
4 A-GND 0.7
5 L-IN2 0.7
6 L-OUT2 0.7
7 INH 7.7
8 DCO 7.7
16 VDD 7.7
15 R-OUT1 0.7
14 R-IN2 0.7
13 A-GND 0.7
12 R-IN2 0.7
11 R-OUT2 0.7
10 U/D 0.7
9 OSC 7.6
QIC2 MC4558S
JIC01
TA8189N
DOUBLE PRE/REC AMP
24 PRE IN A
23 PRE IN B
22 NF
21 METAL OUT
20 PRE OUT
19 TAPE A/B
18 VCC
17 REC SW
16 REC OUT
15 NF
14 REC IN
13 ALC
1 PRE IN A
2 PRE IN B
3 NF
4 METAL OUT
5 PRE OUT
6 MIX OUT
7 GND1
8 M/N
9 REC OUT
10 NF
11 REC IN
12 GND2
JCON1
JCON2
PB-L
PB-R
DECK_B
R/P-L
R/P-R
DECK_A
JQ01 C945Y
JQ51 C945Y
JR09 2.2K
JR59 2.2K
JC01 330P
JC02 182
JC03 122M
JC04 122M
JR01 12K
JL01 85K
JC06 122M
JR05 10K
JR06 120K
JC05 47/25V
JR08 220K
JR07 18K
JR04 120
JC08 220/10V
JR15 3.3K
JC07 1/50V
JC86 222
JR78 10K
JR12 180K
JC13 100P
JR17 10K
JR18 100
JR19 470K
JC15 47/25V
BC15 223
BC17 223
BR29 10K
BC11 100/16V
BC10 223
BL01 10uH
JR33 10K
JC89 152
KSA1009 JQ09
JR20 180K
JR68 10K
S1-1
S1-2
S1-
BASS
TREBLE
50KAX2
QR06 4.7K
QR12 10K
QC07 392
QC06 0.22/50V
QR13 56K
QR07 470K
QQ01 C900L
QC05 0.22/50V
QR58 820
QR08 820
QQ51 C900L
QC55 0.22/50V
QR57 470K
QR63 56K
QC56 0.22/50V
QR01 12K
QR02 15K
QC01 273M
QC02 0.15/50V
QR03 2.2K
QC03 272M
QR04 1K
QC04 333M
QC54 333M
QR53 2.2K
QC52 0.15/50V
QR05 QVR
QR55
QC51 273M
QR52 15K
QC53 272M
QR54 1K
QR51 12K
QC18 1/50V
QC14 1/50V
QC61 1/50V
QC58 1/50V
QC64 1/50V
QR19 100K
QR20 100K
QC11 1/50V
QC65 1/50V
QC15 1/50V
QR11 3.9K
QR61 3.9K
QQ02 R1009
QQ52 R1009
QC16 1/50V
QC17 102
QC67 102
QC66 1/50V
QR24 2.7K
QR97 820
QD02 1SS53
QR17 10K
QR18
QC99 100/10
QC70 470/10V
QC18 223
AR06 1K
AC08 104
AC09 100/10V
AC59 100/10V
QD01 1SS53
BR06 100
BR22 100K
A733Y BQ14
AC58
JR10 5.6K
JR60 5.6K
JC57 1/50V
JR79
JR67 10K
JR70 180K
JC56 122M
JR55 10K
JR56 120K
JC55 47/25V
JR57 18K
JC80 100P
JC81 100P
JR58 180K
JR52 1K
JR53 1K
JC51 1/50V
JC52 47/25V
JR62 180K
JC63 100P
JC64 1/50V
JQ58 R1009
R1009 JQ08

NOTE)

1. The unit of all resistors is Ω unless otherwise stated. (K:KΩ M:MΩ)
2. All resistors are 1/8W unless otherwise stated.
3. The unit of all capacitors is uF unless otherwise stated. (P:PF) 101:100P, 102:1000P, 103:10000P
4. The Schematic diagram is subject to change upon improvement without prior notice.

FUN PORT	TAPE	CD	RADIO
1	0	0	1
2	0	1	0



L
M
N
O
P
Q
R
1
2
3
4
5
6
7
P/B R-CH SIGNAL
P/B L-CH SIGNAL
R/P R-CH SIGNAL
R/P L-CH SIGNAL
120V/60Hz
BS&VDE
240V/50Hz
230V/50Hz
KS
220V/60Hz
110V/60Hz
ETC
220V/50Hz
110V/50Hz
153AP
4558S
AIC01
LA4620
AJ401
ACON2
SP
L
R
VDD 7.7
R-OUT1
R-IN2
A-GND
R-IN1
R-OUT2
U/D
OSC 7.6
QD02 1SS53
QD01 1SS53
QR97 820
QR24 2.7K
AR05 1K
AC08 104
AC09 100/10V
AC59 100/10V
AC02 100/10V
AC01 333M
AR01 2.2
AC04 100/10V
AC03 333M
AR02 2.2
AC54 100/10V
AC53 333M
AR52 2.2
AC52 100/10V
AC51 333M
AR51 2.2
AC62 47/25V
AR07 220(1/4)
AR57 220(1/4)
QQ02 R1009
QQ52 R1009
QR11 3.9K
QR61 3.9K
QC15 1/50V
QC65 1/50V
QC11 1/50V
QC16 1/50V
QC17 102
QC67 102
QC66 1/50V
QC64 1/50V
QC68 1/50V
QC18 223
QC39 100/10
QC70 470/10V
BR06 100
BR22 100K
QR20 100K
BR07 3.3K
A733Y BQ14
AC58 104
AC11
UR01

TR LOCATION

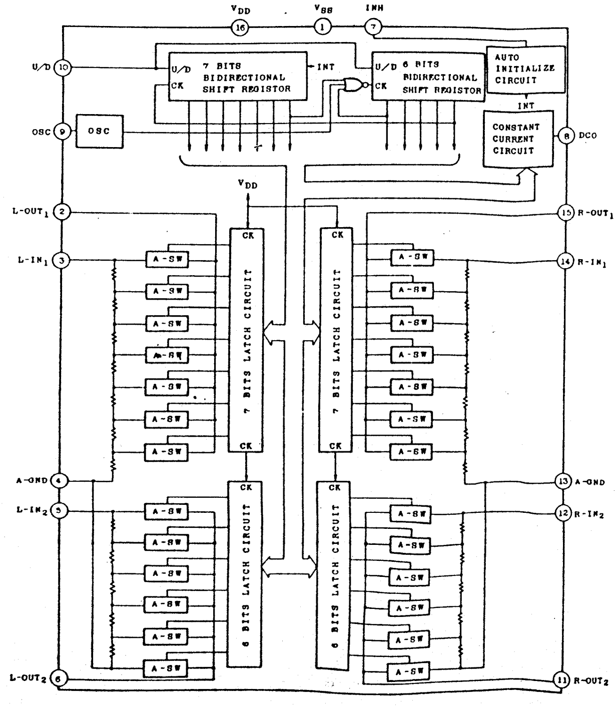
B6 : JQ01, JQ05(C945Y)
B7 : JQ02 (C1008Y)
B8 : JQ03(C1008Y)
C7 : JQ52(C1008Y)
C8 : JQ53(C1008Y)
D9 : JQ05(C9000L)
F9 : JQ06, 079A733Y)
G4 : JQ09(KSR1009)
G7 : JQ08, 58(R1009)
G8 : JQ59 (R1009)
I2, 3 : QQ03(C945Y)
I3 : QQ53(C945Y)
I10 : BQ11(R1007), BQ10(D882)
J5 : QQ01(C900L)
J6 : QQ51(C900L)
J9 : BQ08, 06(R1007), BQ07(R2007)
J10 : BQ12(A708), BQ13(R1007)
K9 : BQ05(A733Y)
K10 : BQ09(A708Y)
L5 : QQ02(R1009)
L6 : QQ52(R1009)
L7 : BQ04(A733Y)
M8 : BQ04(C945Y)
M10 : RQ03(R2003), RQ02(D882-0)
N8 : BQ03, Q02(C945Y)
N10 : RQ01(D471Y)
08 : BQ01(A708Y)
010 : RQ04(C1008Y)

IC LOCATION

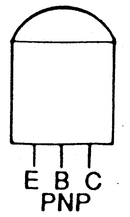
E6 : JIC01(TA8189N)
K5 : QIC1(TC9153AP)
K6, 7: QIC2(MC4558S)
N6 : AIC01(LA4620)

■ IC & TR BLOCK DIAGRAM

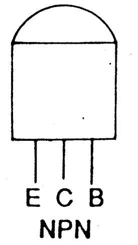
● TC9153AP : QIC1



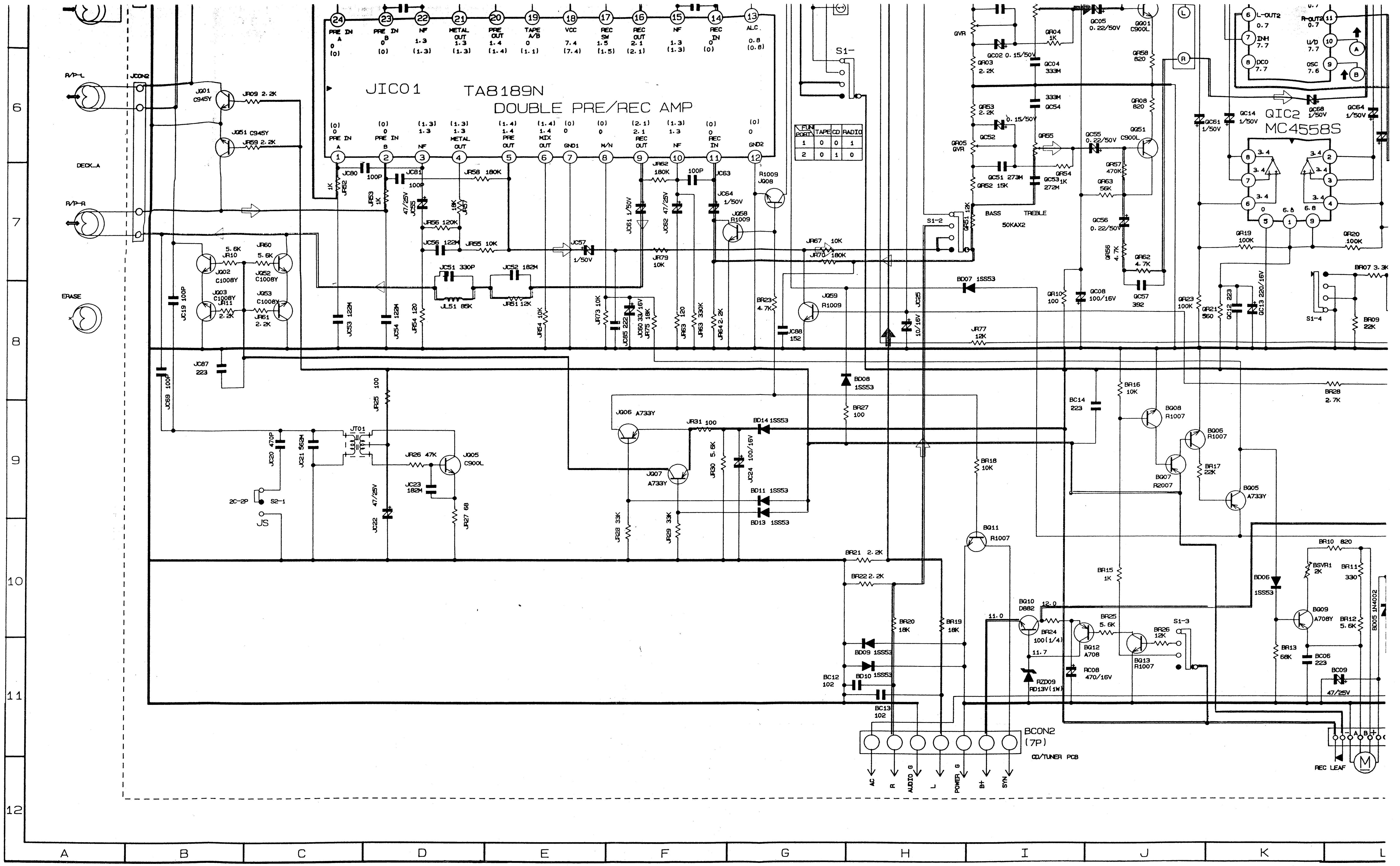
VDD
VSS
INH
U/D
7 BITS BIDIRECTIONAL SHIFT REGISTER
INT
6 BITS BIDIRECTIONAL SHIFT REGISTER
AUTO INITIALIZE CIRCUIT
OSC
CONSTANT CURRENT CIRCUIT
DCO
L-OUT1
L-IN1
A-GND
L-IN2
L-OUT2
R-OUT1
R-IN1
R-IN2
R-OUT2
A-SW
CK
7 BITS LATCH CIRCUIT
6 BITS LATCH CIRCUIT

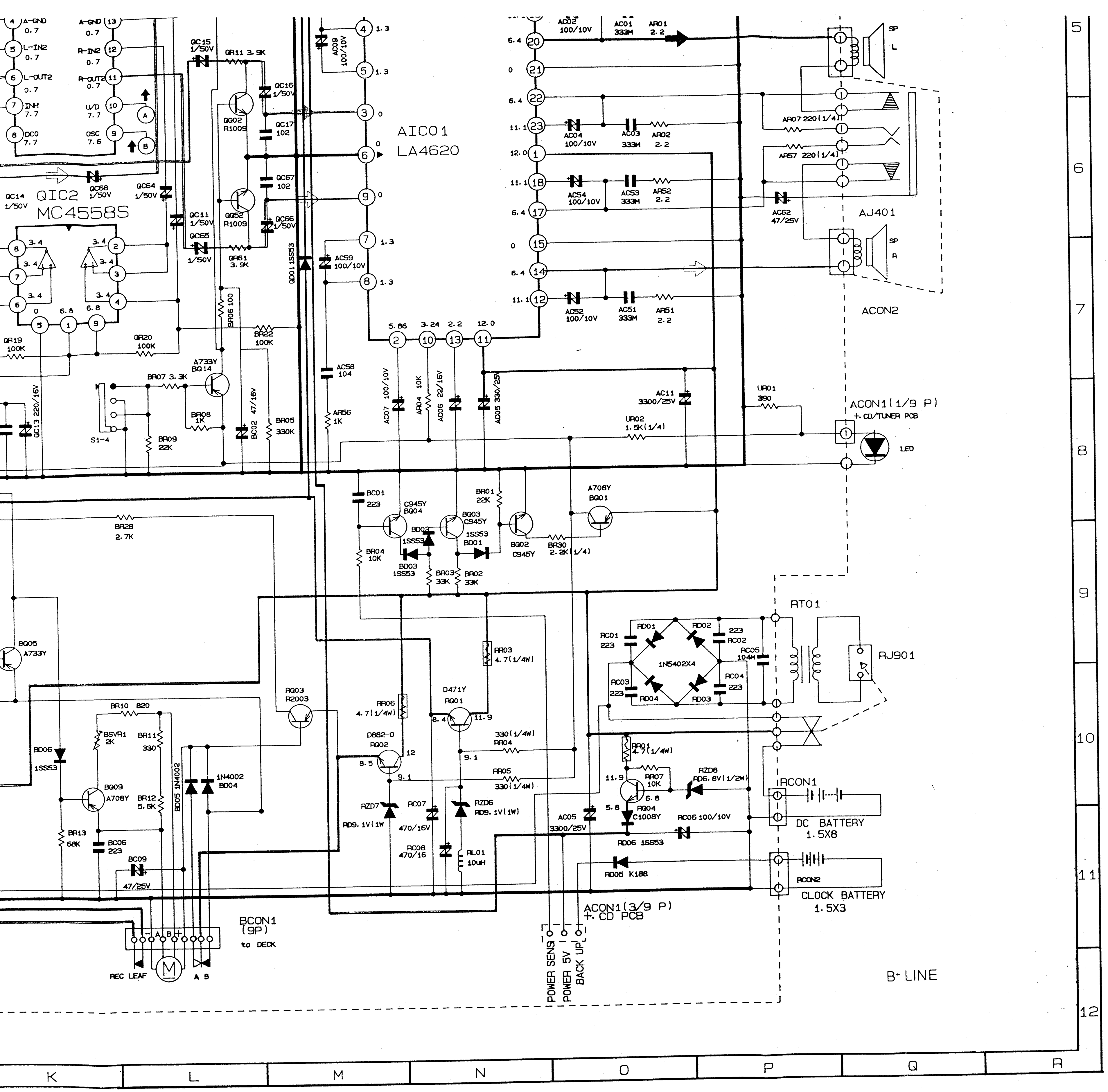


KSC 954Y : JQ01, 05, QQ03, 53, Q02, 03, 04
KSC 1008Y : JQ02, 03, 04, 52, 53
KSC 900L : JQ05, 09, QQ01, 51

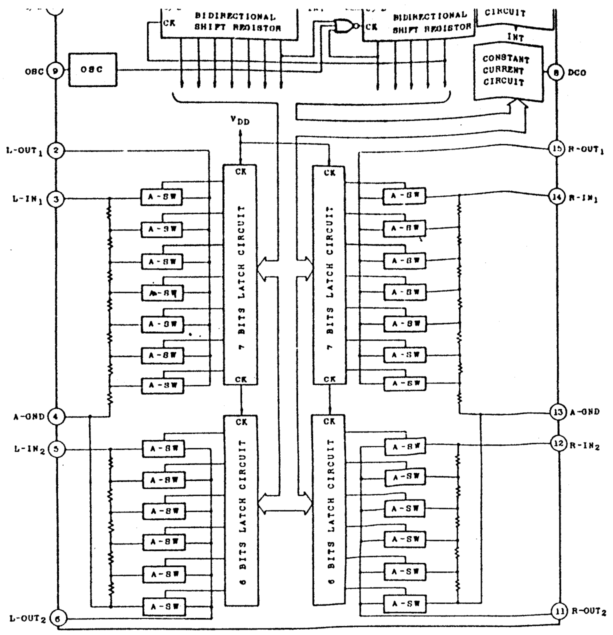


KSR 1009 : JQ08, 09, 58, 59, QQ02, 52
KSR 1007 : Q06, 08, 11, 13

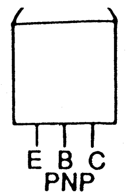

JICO1
TA8189N
DOUBLE PRE/REC AMP
24 PRE IN A
23 PRE IN B
22 NF
21 METAL OUT
20 PRE OUT
19 TAPE A/B
18 VCC
17 REC SW
16 REC OUT
15 NF
14 REC IN
13 ALC
1 PRE IN A
2 PRE IN B
3 NF
4 METAL OUT
5 PRE OUT
6 MIX OUT
7 GND1
8 N/N
9 REC OUT
10 NF
11 REC IN
12 GND2
R/P-L
R/P-R
ERASE
DECK_A
JCON2
JQ01 C945Y
JQ51 C945Y
JR09 2.2K
JR59 2.2K
JQ02 C1008Y
JQ52 C1008Y
JQ03 C1008Y
JQ53 C1008Y
JR10 5.6K
JR60 5.6K
JR11 2.2K
JR61 2.2K
JC19 100P
JC69 100P
JC87 223
JT01
JC20 470P
JC21 563M
JR26 47K
JQ05 C900L
JC23 182M
JC22 47/25V
JR25 100
JR27 68
2C-2P
S2-1
JS
JC80 100P
JC81 100P
JR52 1K
JR53 1K
JR58 180K
JR56 120K
JR55 10K
JC56 122M
JC51 330P
JC52 182M
JL51 85K
JR51 12K
JC53 122M
JC54 122M
JR54 120
JR54 10K
JC57 1/50V
JR73 10K
JC85 222
JC50 33/16V
JR75 18K
JR62 180K
JC61 1/50V
JC62 47/25V
JR79 10K
JR63 120
JR63 330K
JR64 2.2K
JC63
JC64 1/50V
JQ58 R1009
JQ08 R1009
JQ59 R1009
JC88 152
JR67 10K
JR70 180K
JQ06 A733Y
JQ07 A733Y
JR31 100
JR30 5.6K
JC24 100/16V
JR28 33K
JR29 33K
BD14 1SS53
BD11 1SS53
BD13 1SS53
BD07 1SS53
BD08 1SS53
BR27 100
BR23 4.7K
JC25 10/16V
JR77 12K
S1-
S1-2
FUN PORT | TAPE | CD | RADIO
1 | 0 | 0 | 1
2 | 0 | 1 | 0
QVR
QR03 2.2K
QR53 2.2K
QC02 0.15/50V
QC52 0.15/50V
QR04 1K
QC04 333M
QC54 333M
QC05 0.22/50V
QC55 0.22/50V
QQ01 C900L
QQ51 C900L
QR58 820
QR08 820
QR05 QVR
QC51 273M
QC53 272M
QR52 15K
QR55
QR54 1K
QR57 470K
QR63 56K
QC56 0.22/50V
QR56 4.7K
QR62 4.7K
QC57 392
QR51 12K
BASS
TREBLE
50KAX2
QR10 100
QC08 100/16V
QIC2
MC4558S
L-OUT2
R-OUT2
INH
U/D
DCO
OSC
QC51 1/50V
QC14 1/50V
QC68 1/50V
QC64 1/50V
QR19 100K
QR20 100K
QR23 100K
QR21 560
QC12 223
QC13 220/16V
S1-4
BR07 3.3K
BR09 22K
BR28 2.7K
BC14 223
BR16 10K
BQ08 R1007
BQ06 R1007
BQ07 R2007
BR17 22K
BQ05 A733Y
BR18 10K
BQ11 R1007
BR21 2.2K
BR22 2.2K
BR20 18K
BR19 18K
BD09 1SS53
BD10 1SS53
BC12 102
BC13 102
BR15 1K
BQ10 D882
BR24 100(1/4)
BQ12 A708
BR25 5.6K
RZD09 RD13V(1W)
RC08 470/16V
BR26 12K
BQ13 R1007
S1-3
BD06 1SS53
BR10 820
BSVR1 2K
BR11 330
BQ09 A708Y
BR12 5.6K
BD05 1N4002
BR13 68K
BC06 223
BC09 47/25V
BCON2 (7P)
CD/TUNER PCB
AC
R
AUDIO G
L
POWER G
B+
SYN
REC LEAF
M
12.0
11.0
11.7
A B C D E F G H I J K L
6 7 8 9 10 11 12



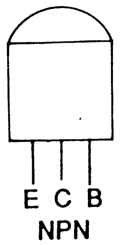
AIC01
LA4620
QIC2
MC4558S
AJ401
ACON2
ACON1(1/9 P)
+. CD/TUNER PCB
LED
RT01
RJ901
RCON1
DC BATTERY
1.5X8
RCON2
CLOCK BATTERY
1.5X3
ACON1(3/9 P)
+. CD PCB
POWER SENS
POWER 5V
BACK UP
B+ LINE
BCON1
(9P)
to DECK
REC LEAF
A B
S1-4
1N5402X4
BQ01 A708Y
BQ02 C945Y
BQ03 C945Y
BQ04 C945Y
BQ05 A733Y
BQ09 A708Y
BQ14 A733Y
RQ01 D471Y
RQ02 D882-0
RQ03 R2003
RQ04 C1008Y
QQ02 R1009
QQ52 R1009
BD05 1N4002
BD04 1N4002
BD06 1SS53
QD01 1SS53
RD06 1SS53
RD05 K188
RZD7 RD9.1V(1W)
RZD6 RD9.1V(1W)
RZD8 RD6.8V(1/2W)
RL01 10uH
BSVR1 2K
AR01 2.2
AR02 2.2
AR51 2.2
AR52 2.2
AR07 220(1/4)
AR57 220(1/4)
UR01 390
UR02 1.5K(1/4)
A-GND
L-IN2
L-OUT2
INH
DCO
R-IN2
R-OUT2
U/D
OSC
K
L
M
N
O
P
Q
R
5
6
7
8
9
10
11
12



BIDIRECTIONAL SHIFT REGISTOR
BIDIRECTIONAL SHIFT REGISTOR
OSC
CONSTANT CURRENT CIRCUIT
INT
DCO
VDD
L-OUT1
L-IN1
R-OUT1
R-IN1
A-GND
L-IN2
R-IN2
L-OUT2
R-OUT2
7 BITS LATCH CIRCUIT
6 BITS LATCH CIRCUIT
A-SW
CK

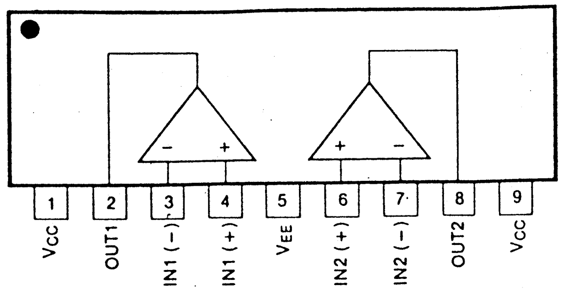


KSC 954Y : JQ01, 05, QQ03, 53, Q02, 03, 04
KSC 1008Y : JQ02, 03, 04, 52, 53
KSC 900L : JQ05, 09, QQ01, 51

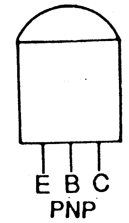


KSR 1009 : JQ08, 09, 58, 59, QQ02, 52
KSR 1007 : Q06, 08, 11, 13
KSR 2007 : Q07

● MC4558S : QIC2

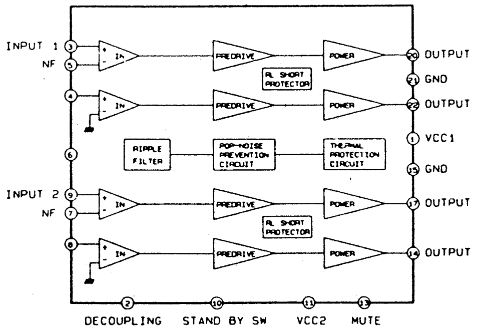


1
2
3
4
5
6
7
8
9
Vcc
OUT1
IN1(-)
IN1(+)
VEE
IN2(+)
IN2(-)
OUT2
Vcc

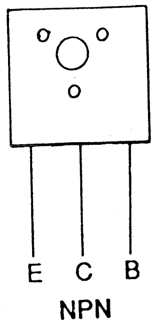


KSA 733Y : JQ06, 07, Q5, 14
KSA 708Y : Q01, 09, 12

● LA4620 : AIC01

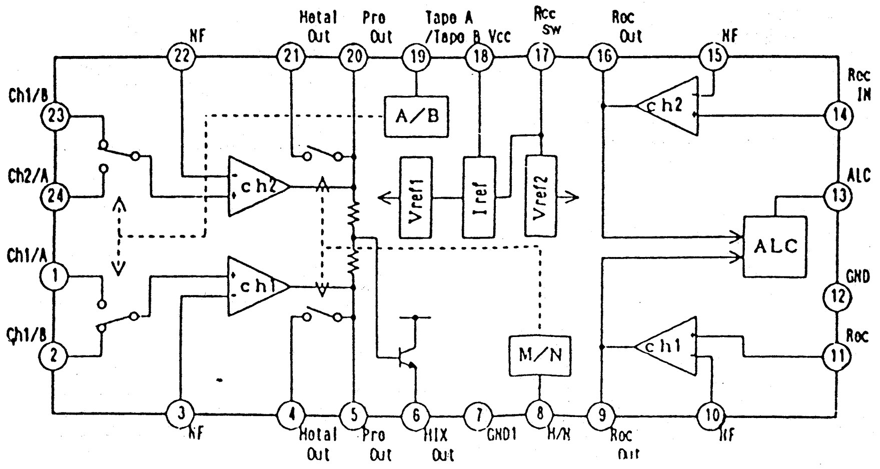


INPUT 1
NF
INPUT 2
NF
PREDRIVE
POWER
AL SHORT PROTECTOR
RIPPLE FILTER
POP-NOISE PREVENTION CIRCUIT
THERMAL PROTECTION CIRCUIT
OUTPUT
GND
OUTPUT
VCC1
GND
OUTPUT
OUTPUT
DECOUPLING
STAND BY SW
VCC2
MUTE

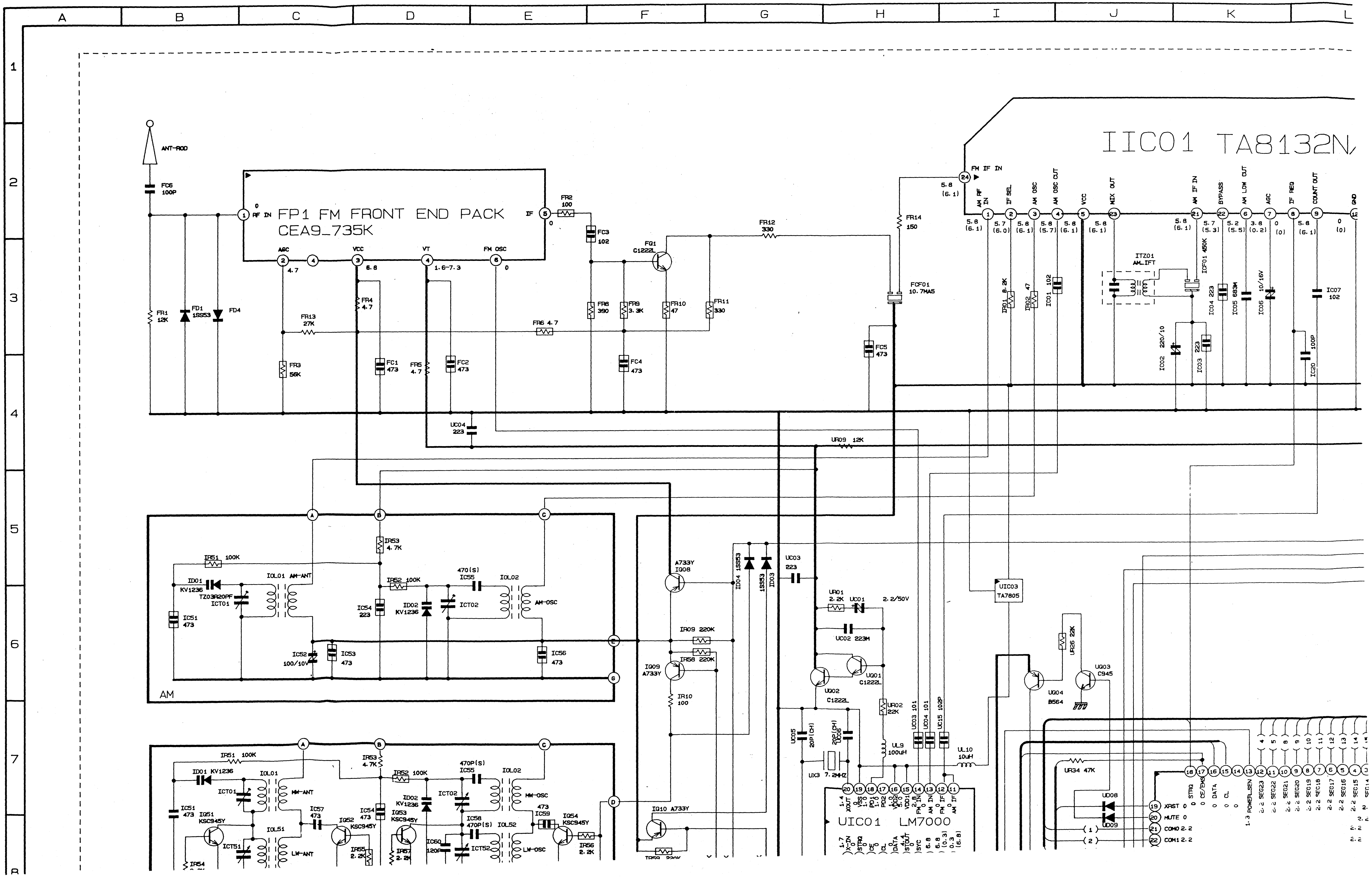


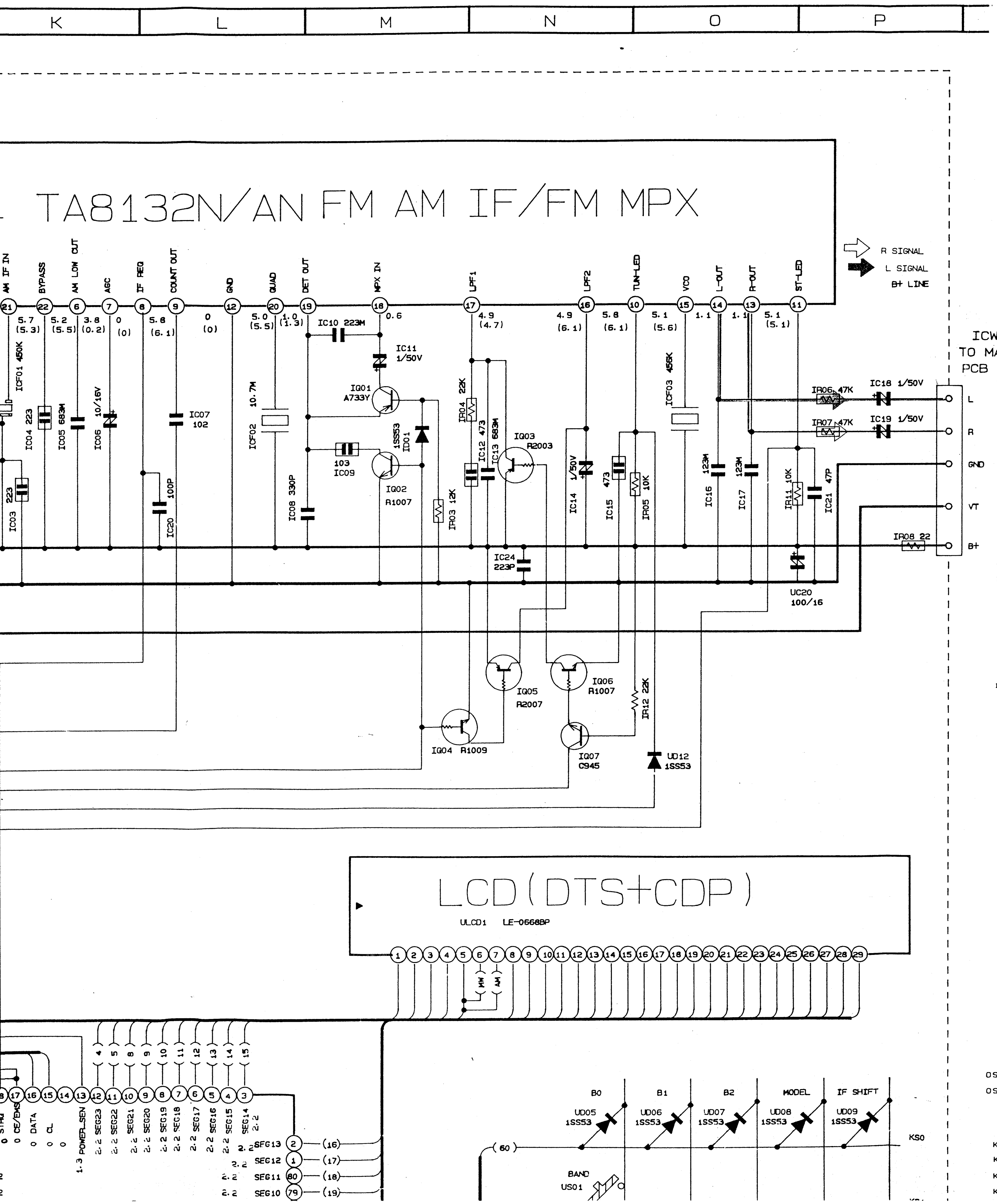
KSD 882-0 : Q01, 02

● TA8189N : JIC01



NF
Metal Out
Pro Out
Tape A /Tape B
Vcc
Rec Sw
Roc Out
NF
Rec IN
ALC
GND
Roc
Ch1/B
Ch2/A
Ch1/A
Ch1/B
ch2
ch1
A/B
Vref1
Iref
Vref2
ALC
M/N
NF
Metal Out
Pro Out
HIX Out
GND1
H/N
Roc Out
NF


A
B
C
D
E
F
G
H
I
J
K
L
1
2
3
4
5
6
7
8
ANT-ROD
FC6 100P
FR1 12K
FD1 1SS53
FD4
FP1 FM FRONT END PACK
CEA9_735K
RF IN
IF
AGC
VCC
VT
FM OSC
4.7
6.8
1.6-7.3
FR2 100
FC3 102
FQ1 C1222L
FR12 330
FR13 27K
FR6 4.7
FR3 56K
FR4 4.7
FR5 4.7
FC1 473
FC2 473
FR8 390
FR9 3.3K
FR10 47
FR11 330
FC4 473
UC04 223
FR14 150
FCF01 10.7MA5
FC5 473
UR09 12K
IIC01 TA8132N
FM IF IN
AM RF IN
IF SEL
AM OSC
AM OSC OUT
VCC
MIX OUT
AM IF IN
BYPASS
AM LOW OUT
AGC
IF REQ
COUNT OUT
GND
IR01 8.2K
IR02 47
IC01 102
ITZ01 AM_IFT
ICF01 450K
IC04 223
IC05 683M
IC06 10/16V
IC07 102
IC02 220/10
IC03 223
IC20 100P
AM
IR51 100K
ID01 KV1236
TZ03R20PF ICT01
IOL01 AM-ANT
IC51 473
IR53 4.7K
IR52 100K
470(S) IC55
IOL02
AM-OSC
IC54 223
ID02 KV1236
ICT02
IC52 100/10V
IC53 473
IC56 473
A733Y IQ08
ID04 1SS53
ID03 1SS53
UC03 223
IR09 220K
IR58 220K
IQ09 A733Y
IR10 100
UR01 2.2K
UC01 2.2/50V
UC02 223M
UQ01 C1222L
UQ02 C1222L
UR02 22K
UIC03 TA7805
UR26 22K
UQ03 C945
UQ04 B564
UC05 20P(CH)
UC06 20P(CH)
UC03 101
UC04 101
UC15 102P
UL9 100uH
UL10 10uH
UX3 7.2MHZ
UIC01 LM7000
XOUT
VSS
STRQ
PD1
PD2
VDD1
VDD2
FM IN
AM IN
FM IF
AM IF
X-IN
CE
CL
DATA
STOUT
SYC
UR34 47K
UD08
UD09
XRST 0
MUTE 0
COM0 2.2
COM1 2.2
STRQ
CE/EMS
DATA
CL
POWER_SEN
SEG23
SEG22
SEG21
SEG20
SEG19
SEG18
SEG17
SEG16
SEG15
SEG14
IR51 100K
ID01 KV1236
IOL01
MW-ANT
ICT01
IC51 473
IQ51 KSC945Y
ICT51
IOL51
LW-ANT
IR54
IC57 473
IQ52 KSC945Y
IR55 2.2K
IR53 4.7K
IR52 100K
IC54 473
ID02 KV1236
IQ53 KSC945Y
IR57 2.2K
IC60 120P
ICT02
IC58 470P(S)
470P(S) IC55
IOL02
MW-OSC
IOL52
LW-OSC
ICT52
473 IC59
IQ54 KSC945Y
IR56 2.2K
IQ10 A733Y
IR59 220K


K
L
M
N
O
P
TA8132N/AN FM AM IF/FM MPX
AM IF IN
BYPASS
AM LOW OUT
AGC
IF REQ
COUNT OUT
GND
QUAD
DET OUT
MPX IN
LPF1
LPF2
TUN-LED
VCO
L-OUT
R-OUT
ST-LED
R SIGNAL
L SIGNAL
B+ LINE
ICW1
TO MAIN
PCB
L
R
GND
VT
B+
IQ01 A733Y
IQ02 R1007
IQ03 R2003
IQ04 R1009
IQ05 R2007
IQ06 R1007
IQ07 C945
UD12 1SS53
UC20 100/16
IR08 22
LCD (DTS+CDP)
ULCD1 LE-06688P
B0
B1
B2
MODEL
IF SHIFT
UD05 1SS53
UD06 1SS53
UD07 1SS53
UD08 1SS53
UD09 1SS53
KS0
BAND
US01

TR LOCATION

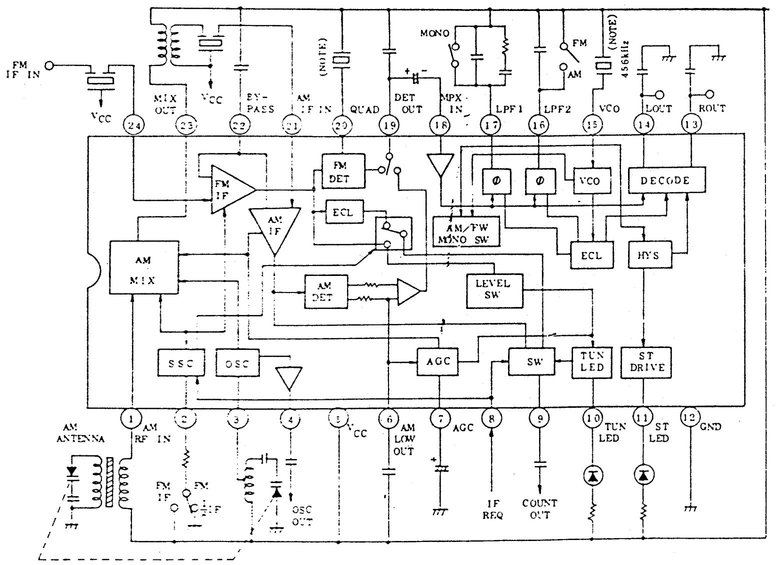
B8 : IQ51 (KSC945Y)
B10 : IQ1 (D471Y)
C8 : IQ52 (KSC945Y)
D8 : IQ53 (KSC945Y)
E8 : IQ54 (KSC945Y)
F3 : FQ1 (C1222L)
F5 : IQ08 (A733Y)
F6 : IQ09 (A733Y)
F8 : IQ10 (A733Y)
G, H6 : UQ02 (C1222L), 08 (KSC945Y)
H6 : UQ01 (C1222L)
H9 : UQ09 (KSA708Y)
I6 : UQ04 (B564)
J6 : UQ03 (C945)
M3 : IQ01 (A733Y), 02 (A1007)
M, N5 : IQ04 (R1009)
N3 : IQ03 (R2003)
N5 : IQ05, 06 (R1007), 07 (C945)

IC LOCATION

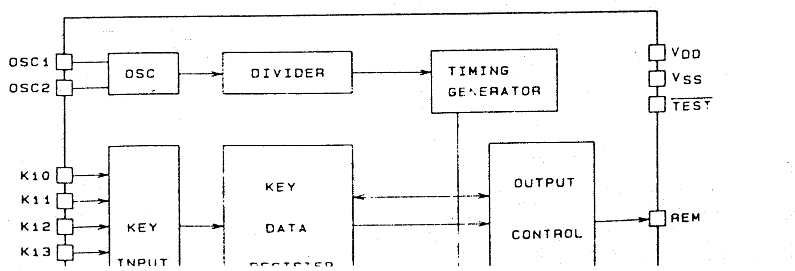
C10 : TIC1 (LC7464M)
H8 : UIC01 (LM7000)
K, L8, 9 : UIC02 (UPD75316AGF)
L, M2 : IIC01 (TA8132N)

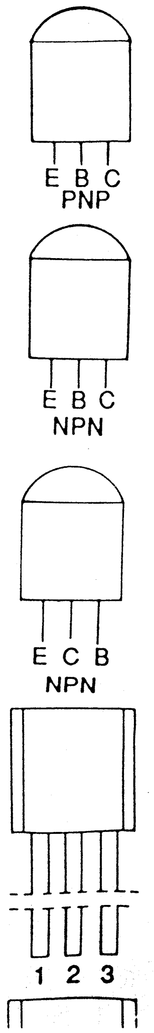
■ IC & TR BLOCK DIAGRAM

● TA8132N : IIC01


FM IF IN
MIX OUT
VCC
BY-PASS
AM IF IN
QUAD
DET OUT
MPX IN
LPF1
LPF2
VCO
LOUT
ROUT
MONO
FM
AM
FM DET
ECL
AM IF
AM MIX
AM DET
AM/FM MONO SW
LEVEL SW
VCO
DECODE
ECL
HYS
SSC
OSC
AGC
SW
TUN LED
ST DRIVE
AM ANTENNA
AM RF IN
AM LOW OUT
AGC
IF REQ
COUNT OUT
TUN LED
ST LED
GND

● LC7464M : TIC1


OSC1
OSC2
OSC
DIVIDER
TIMING GENERATOR
VDD
VSS
TEST
K10
K11
K12
K13
KEY INPUT
KEY DATA
OUTPUT CONTROL
REM


E B C
PNP
E B C
NPN
E C B
NPN
1 2 3

KSC 954Y : IQ51, 52, 53, 54, 07
UQ07, 08
KSC 1222L : FQ01, UQ01, 02
KSD 471Y : IQ1

KSR 1009 : IQ04

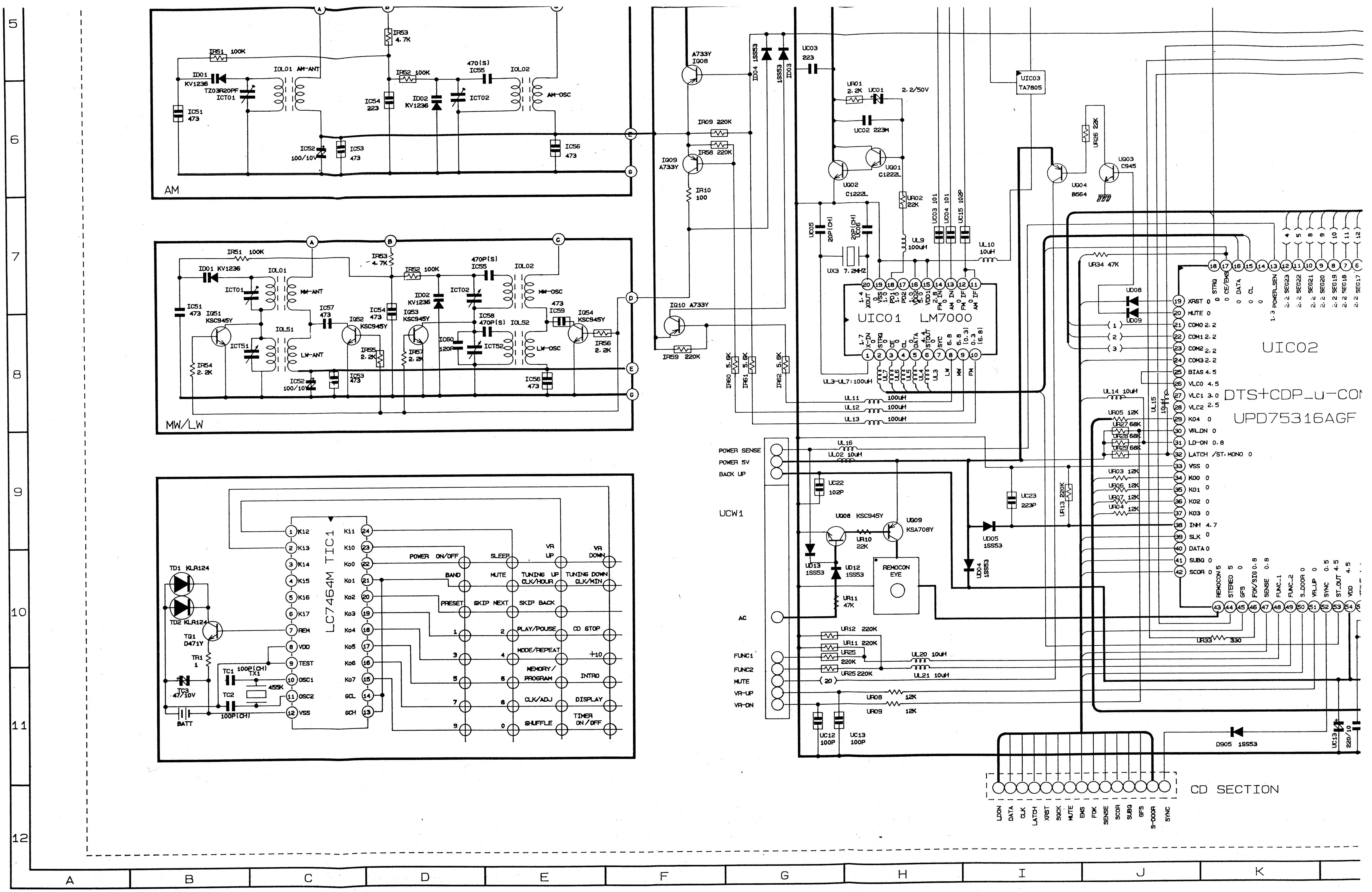
KSA 733Y : IQ08, 09, 10, 01
KSA 708Y : UQ09

* E : EMITTER
B : BASE
C : COLLECTOR

KSR 1003 : UQ03
KSR 2003 : IQ03
KSR 1007 : IQ02, 05, 06

1. EMITTER 2. COLLECTOR 3. BASE

KSR 564 : UQ04


AM
IR51 100K
ID01 KV1236
TZ03R20PF ICT01
IOL01 AM-ANT
IR53 4.7K
IR52 100K
470(S) IC55
IOL02
AM-OSC
IC51 473
IC54 223
ID02 KV1236
ICT02
IC52 100/10V
IC53 473
IC56 473
MW/LW
IR51 100K
ID01 KV1236
IOL01
MW-ANT
ICT01
IC51 473
IQ51 KSC945Y
ICT51
IOL51
LW-ANT
IR54 2.2K
IC57 473
IQ52 KSC945Y
IR55 2.2K
IC52 100/10V
IC53 473
IR53 4.7K
IC54 473
IR52 100K
ID02 KV1236
IQ53 KSC945Y
IR57 2.2K
470P(S) IC55
ICT02
IC58 470P(S)
IC60 120P
ICT52
IOL52
LW-OSC
IOL02
MW-OSC
473 IC59
IQ54 KSC945Y
IR56 2.2K
IC56 473
A733Y IQ08
ID04 1SS53
1SS53 ID03
IR09 220K
IR58 220K
IQ09 A733Y
IR10 100
IQ10 A733Y
IR59 220K
IR60 5.6K
IR61 5.6K
IR62 5.6K
UC03 223
UR01 2.2K
UC01 2.2/50V
UC02 223M
UIC03 TA7805
UQ01 C1222L
UQ02 C1222L
UR02 22K
UC05 20P(CH)
20P(CH) UC06
UX3 7.2MHZ
UL9 100uH
UC03 101
UC04 101
UC15 102P
UL10 10uH
UIC01 LM7000
XOUT VSS PD1 PD2 VDD2 VDD1 FM IN AM IN FM IF AM IF
X-IN STRQ CE CL DATA ST/UL SYC
UL3~UL7:100uH
UL11 100uH
UL12 100uH
UL13 100uH
UR26 22K
UQ04 B564
UQ03 C945
UR34 47K
UD08
UD09
UL14 10uH
UL15
UR05 12K
UR27 68K
UR28 68K
UR29 68K
UR03 12K
UR06 12K
UR07 12K
UR04 12K
UR13 220K
UIC02
DTS+CDP_u-CON
UPD75316AGF
STRQ 0
CE/EMS
DATA 0
CL 0
POWER_SEN 1.3
SEG23 SEG22 SEG21 SEG20 SEG19 SEG18 SEG17
XRST 0
MUTE 0
COM0 2.2
COM1 2.2
COM2 2.2
COM3 2.2
BIAS 4.5
VLC0 4.5
VLC1 3.0
VLC2 2.5
K04 0
VR_DN 0
LD-ON 0.8
LATCH /ST·MONO 0
VSS 0
K00 0
K01 0
K02 0
K03 0
INH 4.7
SLK 0
DATA 0
SUBQ 0
SCOR 0
REMOCON 5
STEREO 5
GFS 0
FOK/SIG 0.8
SENSE 0.8
FUNC_1
FUNC_2
S_DOOR 0
VR_UP 0
SYNC 0.5
ST_OUT 4.5
VDD 4.5
POWER SENSE
POWER 5V
BACK UP
UCW1
AC
FUNC1
FUNC2
MUTE
VR-UP
VR-DN
UL16
UL02 10uH
UC22 102P
UQ08 KSC945Y
UQ09 KSA708Y
UR10 22K
UD13 1SS53
UD12 1SS53
UR11 47K
REMOCON EYE
UC23 223P
UD05 1SS53
UD04 1SS53
UR12 220K
UR11 220K
UR25 220K
UR25 220K
UL20 10uH
UL21 10uH
UR33 330
UR08 12K
UR09 12K
UC12 100P
UC13 100P
D905 1SS53
UC13 220/10
CD SECTION
LDON DATA CLK LATCH XRST SQCK MUTE EMS FOK SENSE SCOR SUBQ GFS S-DOOR SYNC
LC7464M TIC1
K12 K13 K14 K15 K16 K17 REM VDD TEST OSC1 OSC2 VSS
K11 K10 Ko0 Ko1 Ko2 Ko3 Ko4 Ko5 Ko6 Ko7 6CL 6CH
POWER ON/OFF
SLEEP
VR UP
VR DOWN
BAND
MUTE
TUNING UP CLK/HOUR
TUNING DOWN CLK/MIN
PRESET
SKIP NEXT
SKIP BACK
PLAY/POUSE
CD STOP
MODE/REPEAT
+10
MEMORY/PROGRAM
INTRO
CLK/ADJ
DISPLAY
SHUFFLE
TIMER ON/OFF
TD1 KLR124
TD2 KLR124
TQ1 D471Y
TR1 1
TC3 47/10V
BATT
TC1 100P(CH)
TX1 455K
TC2 100P(CH)
5 6 7 8 9 10 11 12
A B C D E F G H I J K

RCD1550CD

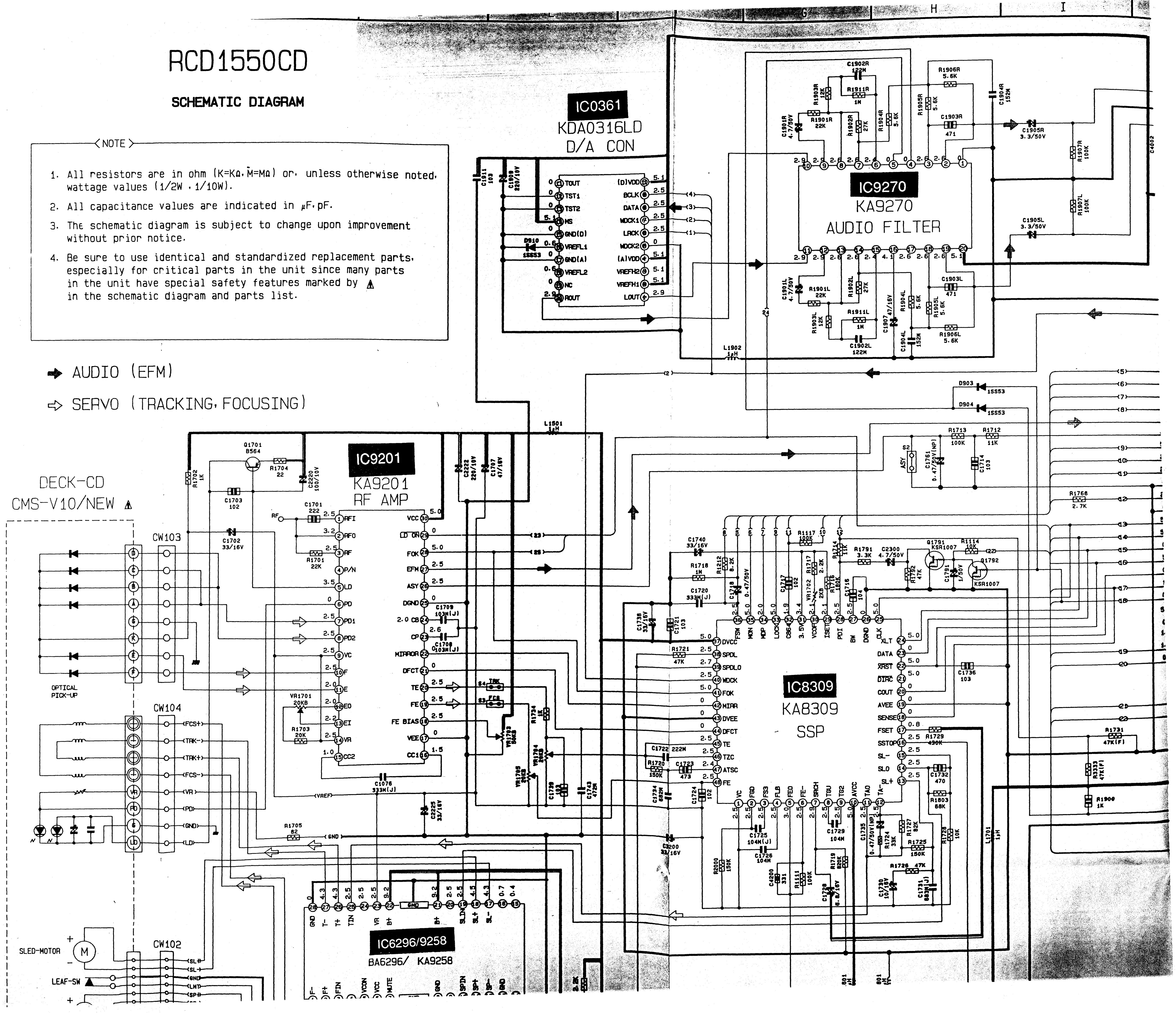
SCHEMATIC DIAGRAM

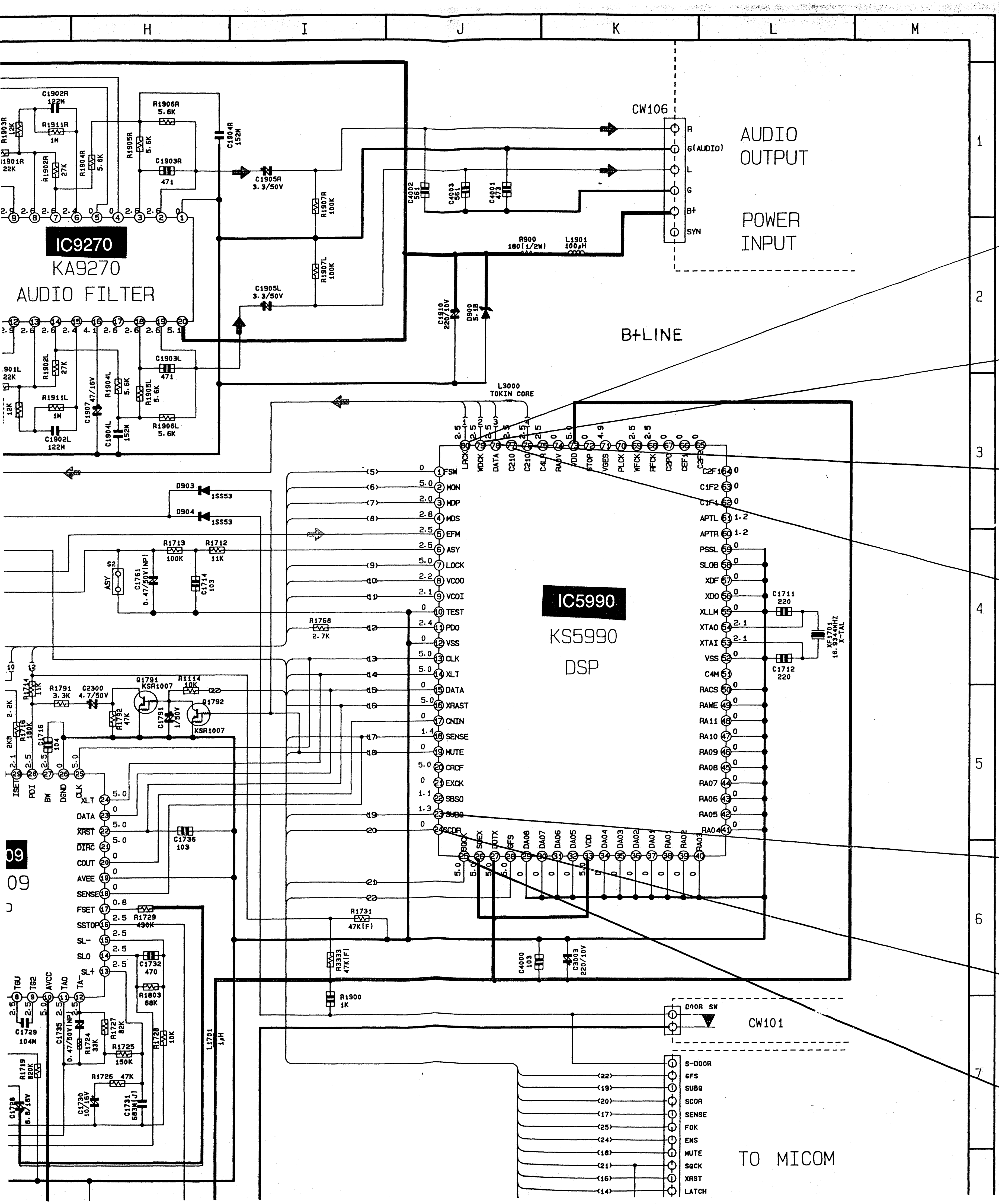
〈NOTE〉

1. All resistors are in ohm (K=KΩ, M=MΩ) or, unless otherwise noted, wattage values (1/2W , 1/10W).
2. All capacitance values are indicated in μF, pF.
3. The schematic diagram is subject to change upon improvement without prior notice.
4. Be sure to use identical and standardized replacement parts, especially for critical parts in the unit since many parts in the unit have special safety features marked by ⚠ in the schematic diagram and parts list.

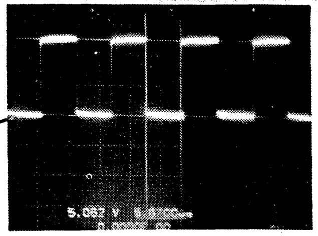
➡ AUDIO (EFM)

⇨ SERVO (TRACKING, FOCUSING)


IC0361
KDA0316LD
D/A CON
IC9270
KA9270
AUDIO FILTER
IC9201
KA9201
RF AMP
IC8309
KA8309
SSP
IC6296/9258
BA6296/ KA9258
DECK-CD
CMS-V10/NEW ⚠
CW103
CW104
CW102
OPTICAL PICK-UP
SLED-MOTOR
LEAF-SW
M
L1501
L1902
Q1701
Q1791
Q1792
D903
D904
D910
S2
S3
S4
VR1701
G
H
I
1
2
3
4
5
6
7
8

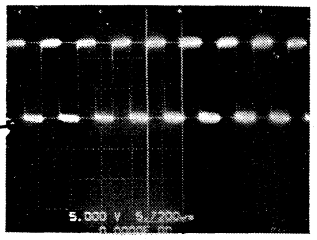

H
I
J
K
L
M
1
2
3
4
5
6
7
IC9270
KA9270
AUDIO FILTER
CW106
R
G(AUDIO)
L
G
B+
SYN
AUDIO OUTPUT
POWER INPUT
B+LINE
R900 180(1/2W)
L1901 100μH
L3000 TOKIN CORE
C4002 561
C4003 561
C4001 473
C1905R 3.3/50V
C1905L 3.3/50V
R1907R 100K
R1907L 100K
C1910 220/10V
D900
C1902R 122M
R1906R 5.6K
C1904R 152M
R1911R 1M
R1905R 5.6K
C1903R 471
R1902R 27K
R1904R 5.6K
C1903L 471
R1902L 27K
R1911L 1M
R1904L 5.6K
R1905L 5.6K
R1906L 5.6K
C1902L 122M
C1904L 152M
IC5990
KS5990
DSP
FSW
MON
MDP
MDS
EFM
ASY
LOCK
VCOO
VCOI
TEST
PDO
VSS
CLK
XLT
DATA
XRAST
CNIN
SENSE
MUTE
CRCF
EXCK
SBSO
SUBQ
SCOR
LRCK
WDCK
DATA
C210
C210
C4LR
RADV
VDD
STOP
VGES
PLCK
MFCK
RFCK
C2PO
CEFL
C2F1
C1F2
C1F1
APTL
APTR
PSSL
SLOB
XDF
XDO
XLLM
XTAO
XTAI
VSS
C4M
RACS
RAWE
RA11
RA10
RA09
RA08
RA07
RA06
RA05
RA04
RA03
RA02
RA01
DA01
DA02
DA03
DA04
VDD
DA05
DA06
DA07
DA08
GFS
DOTX
SMEX
SQCK
D903 1SS53
D904 1SS53
R1713 100K
R1712 11K
S2
ASY
C1761 0.47/50V(NP)
C1714 103
R1768 2.7K
C1711 220
C1712 220
XF1701 16.9344MHZ X-TAL
R1791 3.3K
C2300 4.7/50V
Q1791 KSR1007
R1114 10K
Q1792 KSR1007
R1792 47K
C1791 1/50V
R1714 11K
R1716 100K
C1716 104
ISET
PDI
BW
DGND
CLK
XLT
DATA
XRST
DIRC
COUT
AVEE
SENSE
FSET
SSTOP
SL-
SLO
SL+
TA-
TAO
AVCC
TG2
TGU
C1736 103
R1729 430K
C1732 470
R1803 68K
C1729 104M
C1735 0.47/50V(NP)
R1724 33K
R1727 82K
R1725 150K
R1728 10K
L1701 1μH
R1726 47K
R1719 820K
C1728 6.8/16V
C1730 10/16V
C1731 683M(J)
R1731 47K(F)
R1733 47K(F)
R1900 1K
C4000 103
C3003 220/10V
DOOR SW
CW101
S-DOOR
GFS
SUBQ
SCOR
SENSE
FOK
EMS
MUTE
SQCK
XRST
LATCH
TO MICOM

output of LRCK



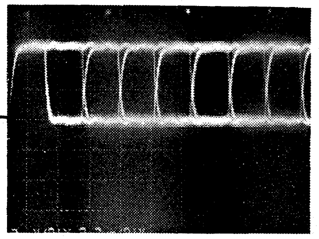
VOLT/DIV : 2V
TIME/DIV : 5 μS

output of WDCK



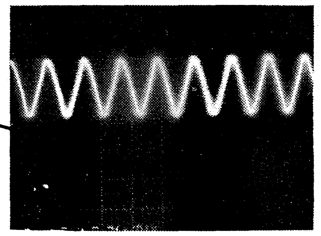
VOLT/DIV : 2V
TIME/DIV : 5 μS

output of DATA



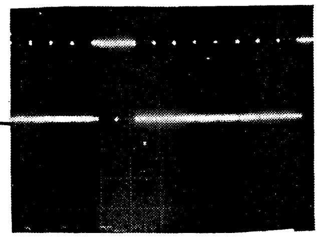
VOLT/DIV : 2V
TIME/DIV : 0.2 μS

output of Bit clock



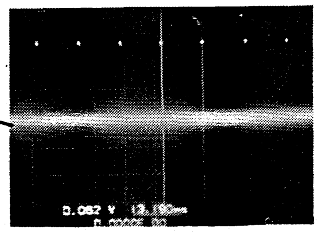
VOLT/DIV : 2V
TIME/DIV : 0.2 μS

output of sub-code Q



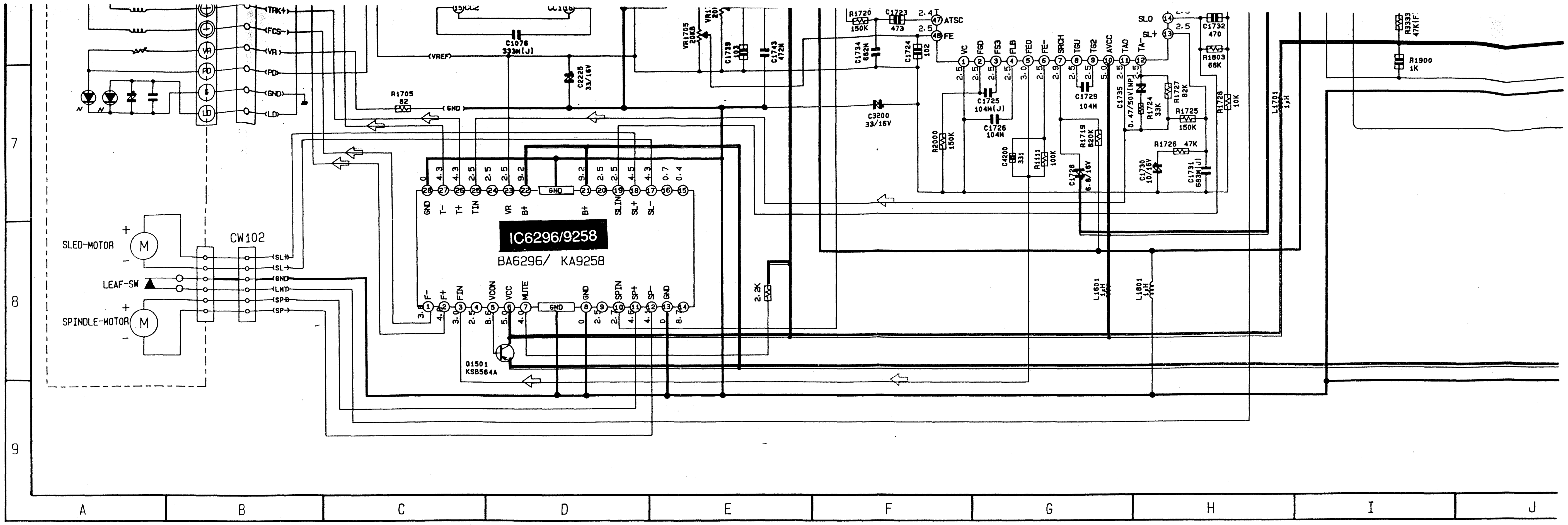
VOLT/DIV : 2V
TIME/DIV : 10mS

output of sub-code synchro.



VOLT/DIV : 2V
TIME/DIV : 10 mS

clock for reading sub-code Q


SLED-MOTOR
LEAF-SW
SPINDLE-MOTOR
CW102
IC6296/9258
BA6296/ KA9258
Q1501
KSB564A
R1705
82
C1076
333M(J)
C2225
33/16V
C3200
33/16V
ATSC
FE
SLO
SL+
C1732
470
R1803
68K
R1900
1K
L1701
1µH
L1801
A
B
C
D
E
F
G
H
I
J
7
8
9

- TR LOCATION

C4 : Q 1701 (B564)

H6 : Q 1791 (KSR1007)

Q 1792 (KSR1007)

- IC LOCATION

D4 : IC 9201 (KA9201) RF AMP

D8 : IC 6296(BA6296), 9258(KA9258)

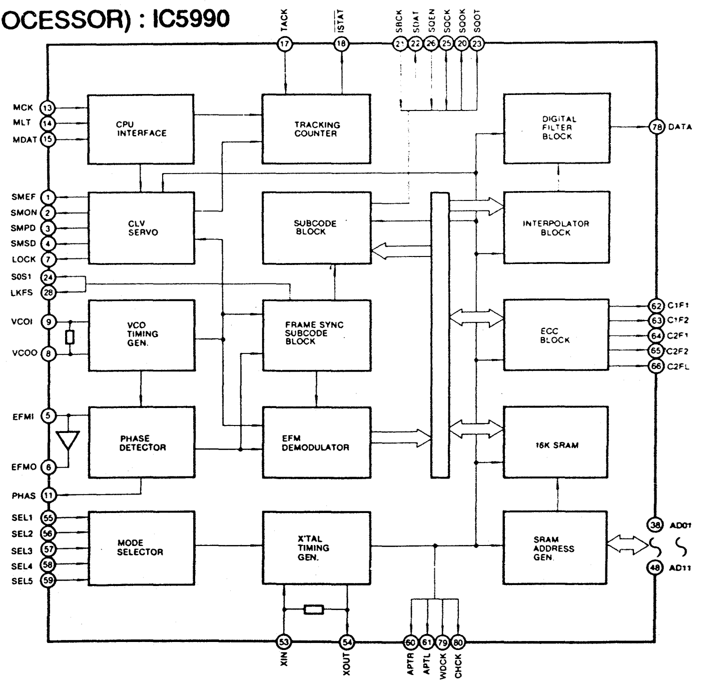
EF : IC 0316(KDA0316LD) D/A CON

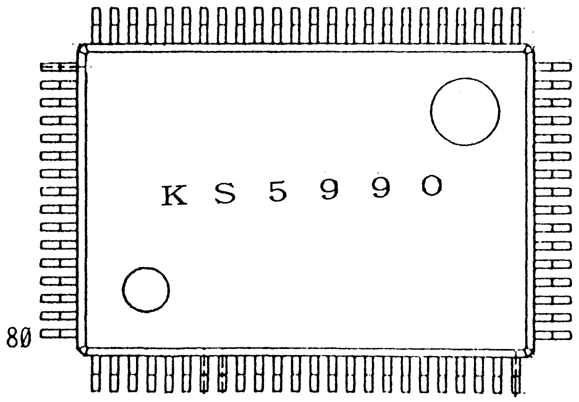
GH2: IC 9270(KA9270)AUDIO FILTER

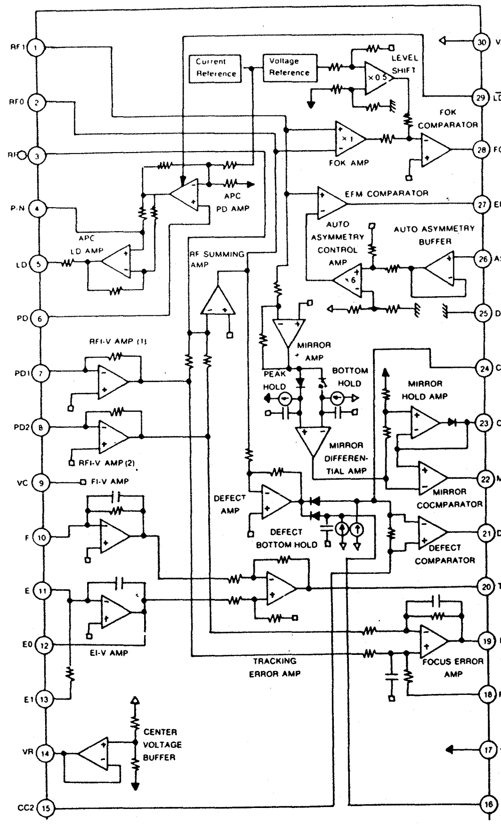
G6 : IC 8309(KA8309)SSP

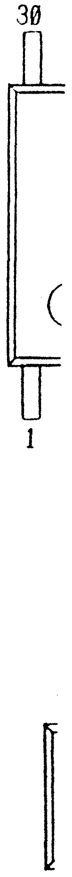
K4 : IC 5990(KS5990)DSP

- **IC BLOCK DIAGRAMS**
- **KS5990 (DIGITAL PROCESSOR) : IC5990**

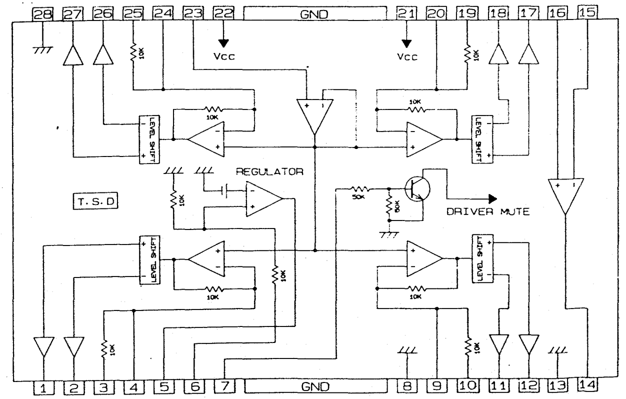

CPU INTERFACE
TRACKING COUNTER
DIGITAL FILTER BLOCK
CLV SERVO
SUBCODE BLOCK
INTERPOLATOR BLOCK
VCO TIMING GEN.
FRAME SYNC SUBCODE BLOCK
ECC BLOCK
PHASE DETECTOR
EFM DEMODULATOR
16K SRAM
MODE SELECTOR
X'TAL TIMING GEN.
SRAM ADDRESS GEN
DATA
AD01
AD11

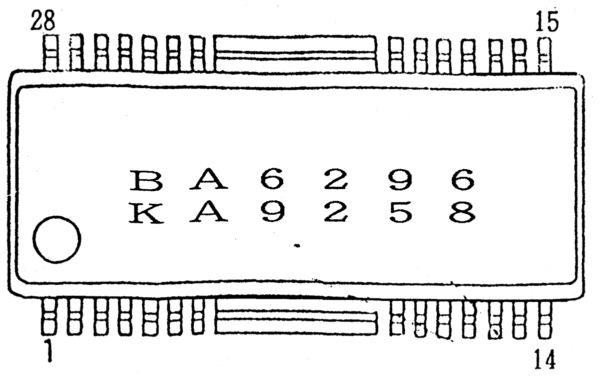



Current Reference
Voltage Reference
LEVEL SHIFT
FOK COMPARATOR
FOK AMP
APC
PD AMP
EFM COMPARATOR
LD AMP
AUTO ASYMMETRY CONTROL AMP
AUTO ASYMMETRY BUFFER
RF SUMMING AMP
MIRROR AMP
PEAK HOLD
BOTTOM HOLD
MIRROR HOLD AMP
MIRROR DIFFERENTIAL AMP
MIRROR COMPARATOR
DEFECT AMP
DEFECT BOTTOM HOLD
DEFECT COMPARATOR
EI-V AMP
TRACKING ERROR AMP
FOCUS ERROR AMP
CENTER VOLTAGE BUFFER
RF-I-V AMP (1)
RF-I-V AMP (2)
FI-V AMP
Vcc
LD ON
FOK
EFM
ASY
DGND
CB
CP
MIRR
DEFECT
TE
FE
FE BIAS
Vcc
CC1

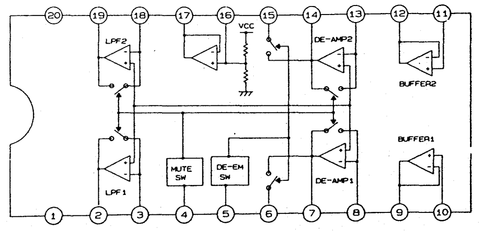


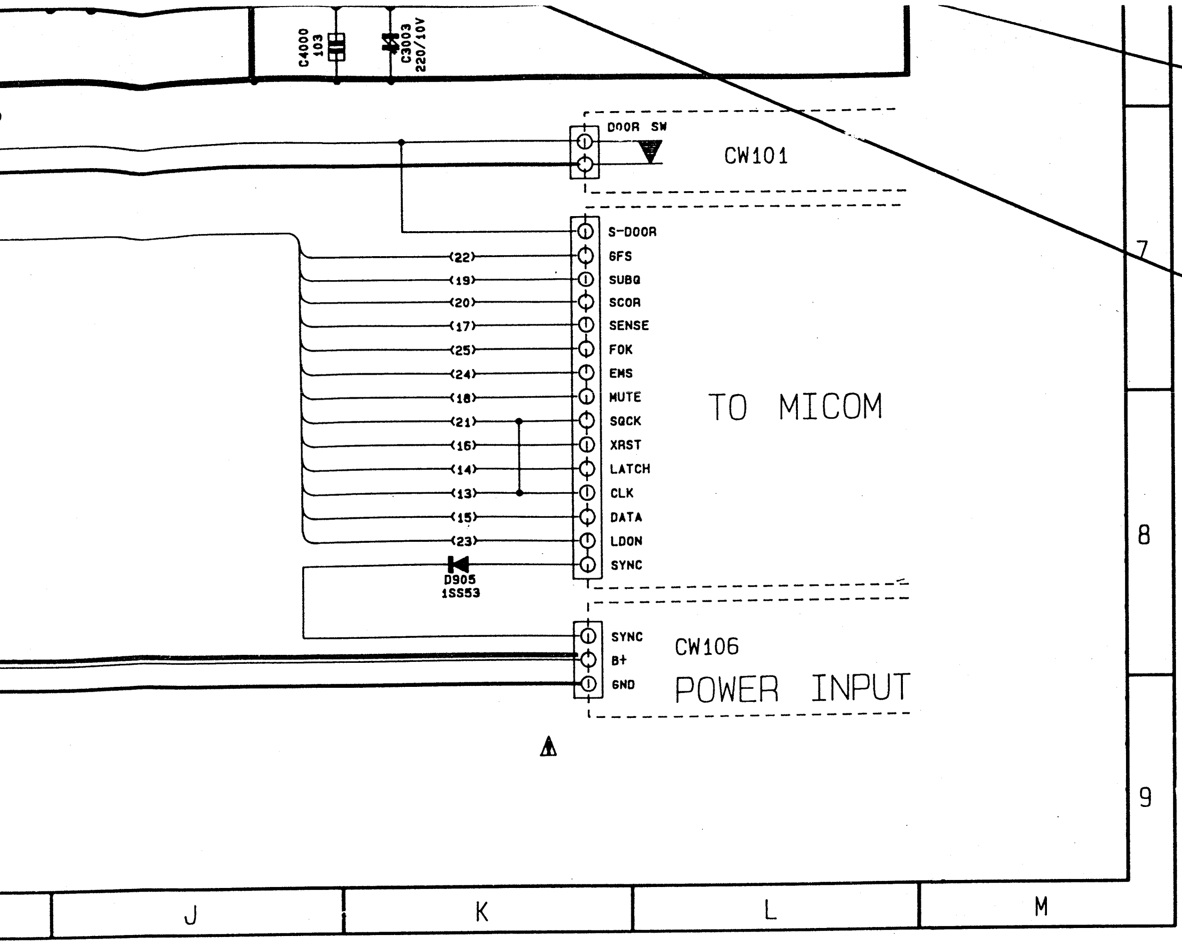
- **BA6296/KA9258(DRIVER IC): IC6296/9258**


GND
Vcc
REGULATOR
T.S.D
DRIVER MUTE
LEVEL SHIFT
10K

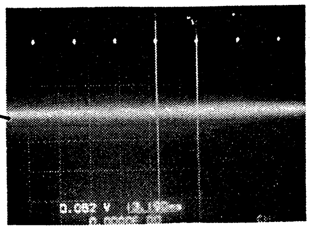

28
15
B A 6 2 9 6
K A 9 2 5 8
1
14

- **KA9270 (AUDIO FILTER) : IC9270**

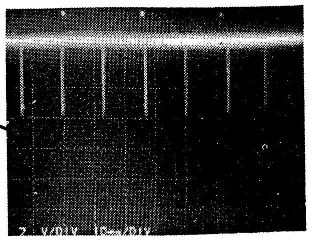

LPF2
LPF1
VCC
DE-AMP2
DE-AMP1
BUFFER2
BUFFER1
MUTE SW
DE-EM SW


C4000
103
C3003
220/10V
DOOR SW
CW101
S-DOOR
GFS
SUBQ
SCOR
SENSE
FOK
EMS
MUTE
SQCK
XRST
LATCH
CLK
DATA
LDON
SYNC
(22)
(19)
(20)
(17)
(25)
(24)
(18)
(21)
(16)
(14)
(13)
(15)
(23)
TO MICOM
D905
1SS53
SYNC
B+
GND
CW106
POWER INPUT
7
8
9
J
K
L
M

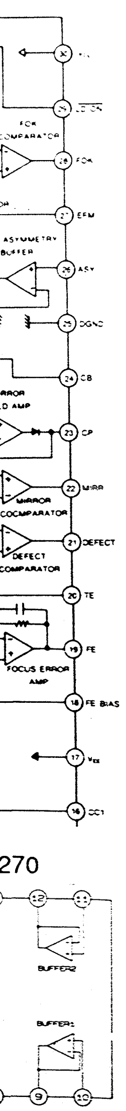
VOLT/DIV : 2V
TIME/DIV : 10mS
output of sub-code synchro.

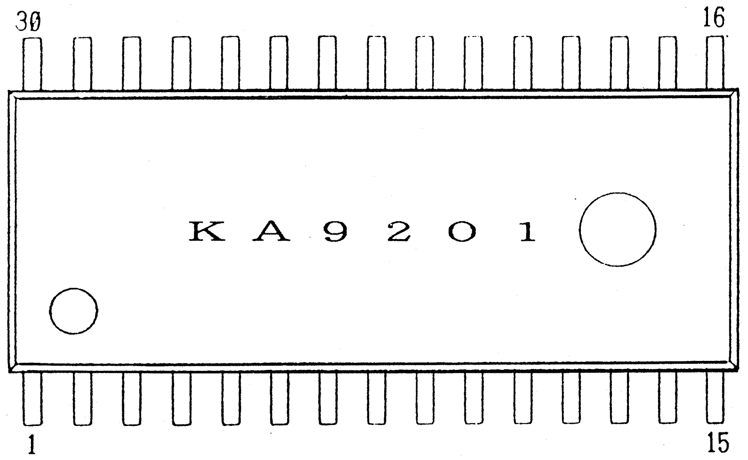


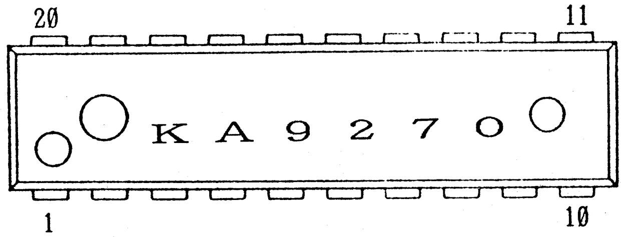
VOLT/DIV : 2V
TIME/DIV : 10 mS
clock for reading sub-code Q



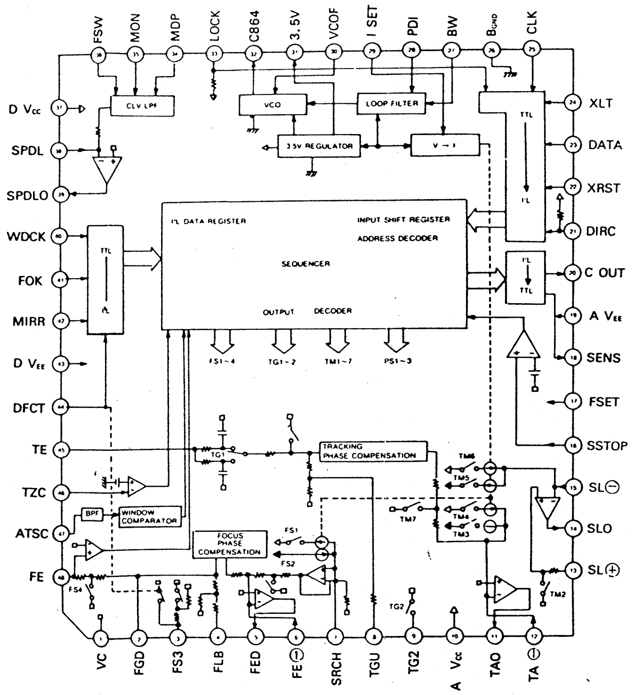
VOLT/DIV : 2V
TIME/DIV : 10 mS

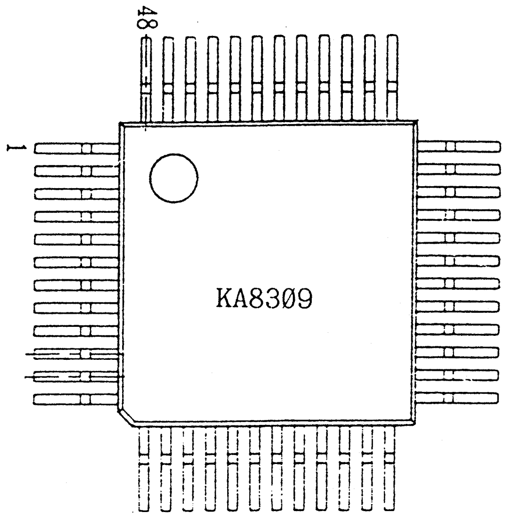

FOK COMPARATOR
FOK
EFM
ASYMMETRY BUFFER
ASY
DGND
CB
MIRROR AMP
CP
MIRR
MIRROR COMPARATOR
DEFECT
DEFECT COMPARATOR
TE
FE
FOCUS ERROR AMP
FE BIAS
270
BUFFER2
BUFFER1

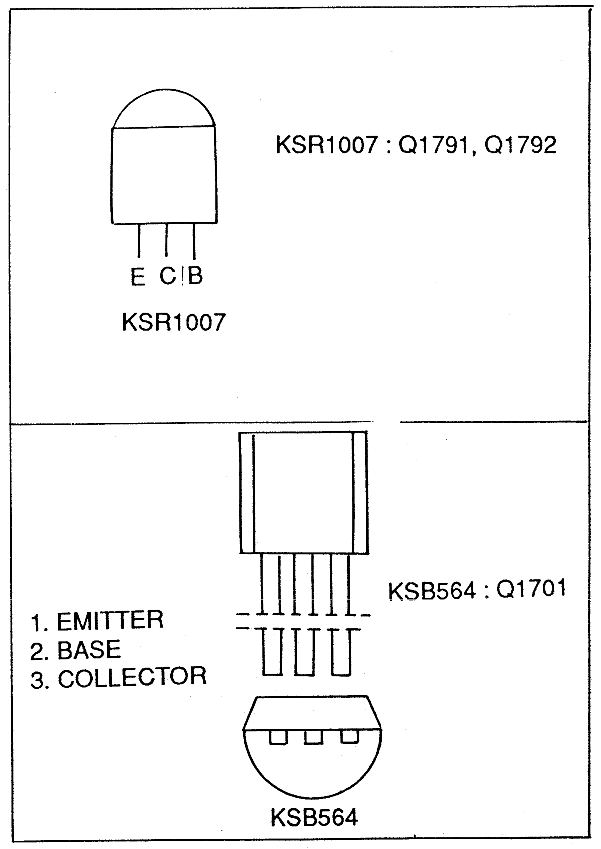

30
16
KA9201
1
15


20
11
KA9270
1
10

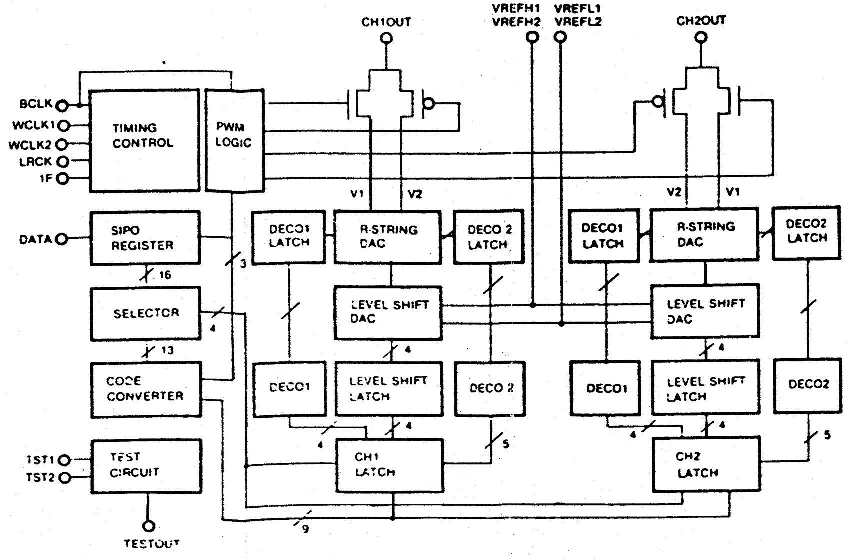
● KA8309 (SERVO SIGNAL PROCESSOR) : IC8309

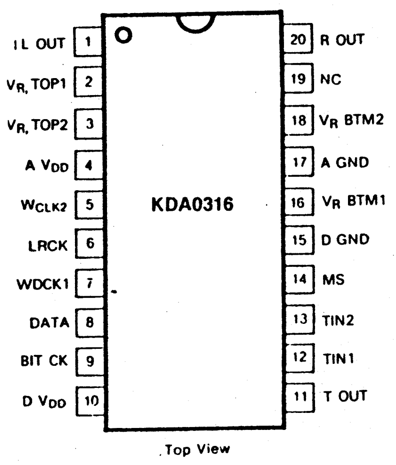

FSW
MON
MDP
LOCK
C864
3.5V
VCOF
I SET
PDI
BW
CLK
D Vcc
SPDL
SPDLO
WDCK
FOK
MIRR
D VEE
DFCT
TE
TZC
ATSC
FE
XLT
DATA
XRST
DIRC
C OUT
A VEE
SENS
FSET
SSTOP
SL⊖
SLO
SL⊕
CLV LPF
VCO
LOOP FILTER
3.5V REGULATOR
V→I
INPUT SHIFT REGISTER
ADDRESS DECODER
SEQUENCER
OUTPUT DECODER
TRACKING PHASE COMPENSATION
WINDOW COMPARATOR
FOCUS PHASE COMPENSATION
VC
FGD
FS3
FLB
FED
FE⊖
SRCH
TGU
TG2
A Vcc
TAO
TA ⊖




KSR1007 : Q1791, Q1792
E C B
KSR1007
1. EMITTER
2. BASE
3. COLLECTOR
KSB564 : Q1701
KSB564

● KDA0316LD (D/A CONVERTOR) : IC0316


CH1OUT
VREFH1
VREFH2
VREFL1
VREFL2
CH2OUT
BCLK
WCLK1
WCLK2
LRCK
1F
TIMING CONTROL
PWM LOGIC
DATA
SIPO REGISTER
SELECTOR
CODE CONVERTER
TST1
TST2
TEST CIRCUIT
TESTOUT
DECO1 LATCH
R-STRING DAC
DECO 2 LATCH
LEVEL SHIFT DAC
DECO1
LEVEL SHIFT LATCH
DECO 2
CH1 LATCH
DECO2 LATCH
CH2 LATCH
V1
V2
16
13
3
4
9
5


IL OUT 1
VR TOP1 2
VR TOP2 3
A VDD 4
WCLK2 5
LRCK 6
WDCK1 7
DATA 8
BIT CK 9
D VDD 10
20 R OUT
19 NC
18 VR BTM2
17 A GND
16 VR BTM1
15 D GND
14 MS
13 TIN2
12 TIN1
11 T OUT
KDA0316
Top View